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ORIGINAL COMMUNICATIONS.

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*Lectures on Scarlet Fever.* BY CASPAR MORRIS, M. D., late  
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LECTURE VII.

While the general character of the *simple* form of Scarlet Fever is sthenic, and, as I have remarked when describing the treatment appropriate to it, will bear depletion better than the other varieties, though never demanding it, the *anginose form* is not so uniform in this respect. In different epidemics it presents every grade of action, from one of acute inflammatory fever, till it is merged, by imperceptible shades, into the low or malignant form. Hence arises the great variety in the modes of treatment recommended by different authors, all equally entitled to your confidence; and the great difference in the mortality in different years, or in the same year at different places. This difference in mortality cannot always be ascribed to different modes of treatment, though this does undoubtedly exert a powerful influence. In the London Fever Hospital it varied, in the course of eleven consecutive years, from *one* fatal case in every

*six, to one in forty*; and an equally curious variation will mark the practice of most medical men, not only in the course of years, but even during the same year, in different parts of the same town, or district of country, and in different families. The observation of these facts has caused me to be very cautious in the expression of condemnation of any particular mode of practice. The candid remark of the judicious and upright Dr. Fothergill may be borne in mind with great advantage: "In some cases the disease appears to be of so mild a nature, and so benign, as to require but little assistance from art; persons even recover from it under the disadvantages of unskilful and injurious management; whilst in others the progress of the symptoms is so rapid, and the tendency to corruption so strong, that nothing seems able to oppose it." It is not, therefore, just, always to estimate the advantage of a plan of treatment by the recovery of a limited number of patients. It may merely indicate that the power of nature for self-preservation is sufficiently strong to resist the combined injurious influences of the disease and the treatment. I desire to make this remark with entire candor, and that it should be applied with equal fairness to the treatment I myself suggest, as to that equally strongly recommended by others; while, at the same time, I would assure you that it is not without personal experience of the effect of other plans, that I have adopted my own.

This same general remark as to the limited duration of the original disease, the importance of which I endeavored to impress upon you when the simple form was under consideration, is equally applicable to this. It is of far greater importance, however, to keep it ever in your mind, and to allow it to modify your practice. The greater urgency of the symptoms appears to demand a proportionate increase of the energy of treatment. The local lesions are frequently so severe from the very onset, as to require anxious care; and the influence they exert in prolonging the fever, by their irritation after the primary disease has subsided, is well calculated to render the treatment obscure, and the result doubtful. Few minds are so well balanced as to be able to resist the influence of these circumstances, or capable of such nice discrimination as will enable them to arrange the symptoms and adopt the treatment without improper bias. Not

only does the severity of the local lesions, in many cases, incite to the adoption of a treatment needlessly active, but the fear of the result of these local inflammations is often so great, as to overwhelm the judgment. I have known not a few lives sacrificed to the anxiety to avert anticipated evils, and to cure a condition which art can only *relieve*, while nature herself is working the cure, in the regular course of events. Nor have I any wish to screen myself from the censure of being a participant in such results. The remembrance of too many cases in which I have had reason to regret a too energetic treatment, whether depletory or stimulating, urges me thus to press upon your attention, opinions which have been formed at the expense of much personal observation.

The occurrence of a local lesion giving rise to the *anginose* variety of Scarlet Fever, does not of itself involve any change in the general principles of treatment already laid before you. In its slightest degree the *anginose* manifests itself by a slight tenderness about the angle of the jaw, with some enlargement of the lymphatic glands. If the condition of the fauces is examined, the membrane lining the arches and covering the tonsils and uvula, will be found more intensely red, and sometimes slightly *œdematous*. From this condition the severity of the local affection gradually increases, till it assumes the various appearances formerly described.

The only change in the treatment demanded by this local affection, when there is no tendency to sloughing of the inflamed organs, nor general disposition to prostration of the vital force, is attention to those agents which will afford present relief from the discomfort it occasions. The external swelling and tenderness will yield to the soothing influence of warmth and moisture. When properly applied, this is always grateful, but when done in a slovenly or careless manner, is exceedingly offensive. A flannel cloth wrung out of hot water, and applied with moderate firmness, and of several folds thickness, and then covered with a layer of oiled silk, and that enveloped in a nice napkin, will retain the necessary degree of warmth and moisture a long time. It is lighter than the poultices commonly resorted to, and is free from the smell which renders them offensive, and does not leave the dried deposit which forms around the edges of the cataplasms.

Next to this in adaptation is a thin layer of Indian mush, thoroughly boiled till it forms an adhesive mass, and applied in a thin flannel envelope, taking the same precautions to avoid evaporation. You may think these are matters which may be left to the attention of the nurse; but you will find that not only your own reputation will be increased, by your ability to give minute directions about apparently trifling matters; but, what is of vastly greater consequence, the present comfort of your patients will be increased, and these little things influence, in a great degree, the ultimate result. To no portion of human experience is the line of the satirist more applicable, than to that which comes under the notice of the medical adviser:

"Let school bred pride dissemble all it can,  
These *little things* are *great* to little man."

Great not only in relation to comfort, but to results.

But while warmth and moisture externally applied are thus important, the internal condition requires an opposite treatment. There is nothing so effectually soothes the internal irritation, and averts the probable results of the excited action of the capillaries of the mucous membrane, as the free use of *ice*. In the same manner as the sponging or ablution of the surface, it acts not only in the relief of the local inflammation but also on the general nervous system. The natural instinct of the patient calls for such treatment, and its appropriateness will commend it to every one ready to throw off the trammels of authority. I had long employed it to great advantage before I was aware that it had been used by any other person, but am happy to be able to fortify my testimony to its usefulness, by the report of Dr. S. Jackson, of Northumberland, which is given in the North American Medical and Surgical Journal. Dr. Jackson deserves, I believe, the credit of first drawing the attention of the profession to its use, through the agency of the press. I direct the ice to be divided into *small* fragments, such as can be easily held in the mouth without dissolving. When thus prepared, if wrapped well in flannel and placed in a bowl at the bedside, so as to be easily accessible, the patient may use it as freely as agreeable. When old enough to perform the act of gargling, iced water is the best article for that purpose. In a large majority of cases I have found this local treatment, joined

to the same general course previously recommended, lead to the entire subsidence of the local symptoms simultaneously with the decline of the primary fever.

Would that I could promise so happy a result in every case, even where the primary symptoms are least threatening. It occasionally happens that ulceration of some part of the mucous membrane occurs, either in the posterior nares or the fauces, and gives rise to a profuse secretion of viscid mucus, or a discharge of an acrid fluid, which spreads the destruction over adjacent parts, and, as I have mentioned already, even excoriates the skin when it is allowed to rest upon it. It is almost equally important to relieve both of these conditions. The latter, by spreading the ulcerative process, adds to and prolongs the irritative fever, while the former very materially increases the risk of a fatal termination by the serious impediment to free respiration which it interposes. The vital powers already prostrated by the depressing agency of the miasm which produces the disease, the blood poisoned by its deleterious influence, the life or death of the patient may depend on the freedom with which air is drawn into the lungs. The nervous force diminished and the muscular power abated, we have only to obstruct the air passages through which the life-giving oxygen is admitted, to cut off the only avenue for hope. How often have I seen a poor child lie with the nostrils—the natural breathing channel—entirely obstructed, the mouth unnaturally open to supply a supplementary avenue for air, yet tossing and struggling in instinctive efforts for fresh air to vivify the blood; while the injected conjunctiva, the upturned eye, and the livid hue, all told how vain was the effort. Though when it has reached this point in the downward course, little hope can cheer our efforts, even then they should not be abandoned, as relief to suffering is within our reach, even though death may finally conquer. Gargling is wholly useless; the seat of the diseased action is beyond its reach, and the barbarous substitute of swabbing is but little more effective, with all the pain it gives to the patient and trouble to the operator. The *syringe* affords a most effectual and very easily applied remedy. When no other was accessible, I have employed a common gill pewter pipe; but the neat glass syringe now used for cleansing the ear is admirably adapted for this ser-

vice. Water alone is not sufficient to inject. A little nice soap, which has no volatile oil in it, may be diffused in the water, in those cases where the irritation of the mucous membrane gives rise to a viscid tenacious secretion; or if this is not effectual in changing the action, a very *weak* solution of sulphate of copper or zinc. Either of these agents coagulates the mucus and facilitates its removal at the same time that it acts kindly on the diseased membrane. In those cases in which the secretion is thin and acrid, I have found simple lime water the best detergent. They should be thrown into the nostril, care being taken to have the head elevated at the time and the person of the child inclined forward, while the direction given to the syringe should be such as will cause the fluid to pass toward the posterior nares, and not toward the cells and sinuses. When the throat is much swollen, the fluid thrown into one nostril will often return through the other, thus effectually cleansing both; in other cases it will be rejected through the mouth. The greatest trouble it causes is some little retching or sneezing, either of which is advantageous to the patient. I have often saved life by this simple resort, and commend it to your notice as of great practical value. The solution of sulphate of copper or zinc should not be employed during the first five days of the disease. They then only increase the irritation and aggravate the suffering of the patient, as well as promote the ulceration they are so adapted to cure in the later stage.

The diet of the patient in anginose scarlet fever should also claim the attention of the physician. During the earlier stage, the remarks made on the simple form are equally applicable here. Water ices, iced cream or chocolate ice, subacid fruits and whey, either frozen or dissolved, are excellent, if used with moderation. As the primary fever subsides, animal broths, and bread and milk are well adapted; still keeping in view the fact that quantity is quite as important as quality. Purging as a curative agent is needless, though it is important to secure a regular action of the bowels, which may be readily effected either by small quantities of calcined magnesia or the use of the neutral mixture. We meet with some cases in which there is a tendency to diarrhoea, caused by the irritation of the acid secretions swallowed by the child. These are most effectually

treated by the magnesia in very small doses, which absorbs the acid and carries off the cause of irritation. It should be followed by suitable doses of Dover's powder or laudanum.

But whilst I thus recommend, as the result of my own observations, in a field by no means limited, a treatment so simple, and by some thought inert, when brought into contest with a disease of so formidable character, I am bound to inform you that there are not wanting many authors, and those, too, of the very highest authority in medical science, who urge a very different plan. General bleeding is not without its advocates, as well among our own medical authors as those of Europe. Even those writers who most recommend its employment, do not hesitate to admit that there are epidemics to which it is inappropriate. Cerebral complications have been thought especially to demand it; on that point I have already delivered my opinion. I have never known a patient to recover from this form of scarlet fever when I employed the lancet. The rapidity of the circulation, the heat of the surface, and the buffy coat on the blood, which have been adduced as indications for bleeding or justification of its use, have all been proved by more accurate observation to be susceptible of a different construction. I do not mean to assert that it is not possible for the disease to assume a character which may demand such treatment. I know it to be capable of changes so extreme, that I can easily believe such may have been its character without my having met with the cases. But even many of those authors who coincide with me in the abandonment of general bleeding, still urge the necessity of the topical abstraction of blood by cups or leeches. This practice is, I think, open to still greater reprehension than the other. Not only is it subject to the same objection on account of its depressing influence, but there is superadded the liability to ulceration of the bites of the leeches or the gashes of the scarificator, which give rise to tedious sores, and often leave unsightly scars, even if the vigor of the patient be sufficient to carry him through the combined injurious influences of the disease and the treatment. But while modern observation has cast a shade of doubt on the necessity for bloodletting in even the pure phlegmasiæ, it has brought still greater discredit on the resort to it in the mixed cases of local inflammation with specific fever. Even quinsy,

which is more closely allied to anginose scarlet fever than any other disease, is rarely, if ever, arrested in its progress by either general or topical bloodletting. While, therefore, there is much to discountenance the resort to these measures, there is, on the other hand, little to invite to their use.

The employment of emetics has been highly commended by many authors, and their use may be vindicated more easily than that of bleeding. The shock given to the nervous system is by some thought to promote the development of the disease. This is at least a questionable assertion. I believe the only mode in which they can act advantageously, is by the discharge of the contents of the stomach, which might, if retained, become sources of irritation, and by the production of that determination to the surface which accompanies the act of vomiting. Antimonial emetics are wholly unsuited. Ipecacuanha is the best article that can be employed; and next to it I should rank the powdered alum, so highly and justly recommended by Dr. Meigs in croup. Purging, beyond the mere evacuation of the bowels, is not only uncalled for, but pernicious. It cannot remove the specific irritation of the mucous membrane of the alimentary canal, and adds another to that already existing. Even Dr. Hamilton, while he lauds highly the advantages of a free purge in the beginning, admits that it is not required subsequently. The recovery of patients after vomiting or purging, cannot be adduced as evidence of the benefit of the practice, for reasons already assigned; and when there are any signs of irritation of the mucous membrane, they are decidedly injurious. Dr. Fothergill, speaking of the treatment of the disease, says: "Bleeding was prejudicial," but with that caution which gives the more weight to his authority, adds, "in general; some admit of it at the first attack, but later it never fails to aggravate the symptoms, and in some cases it appears to have produced fatal consequences. Nor has purging," he continues, "been observed to be more beneficial, and nitrous cooling medicines produce the like effect." Gentle emetics, if administered early, he commends highly, declaring that they often cure the disease, even when the symptoms are most threatening.

It not unfrequently happens that at the close of the first week of the disease, as the primary fever subsides, the pulse loses its

frequency, the skin becomes cool and moist, and the patient languid, with loss of appetite. A very moderate use of quinine in such circumstances is useful. Great care is requisite not to push it too far, either in quantity or the length of time. A few days bring you to the period which is especially liable to inflammatory sequelæ. A return of the frequency of the pulse, and an increase of the languor, will mark the occurrence of this condition, and should cause an immediate suspension of the tonic treatment, and great care about the diet. This is especially necessary, as it is impossible to foresee in which of the organs liable to the secondary affections the mischief may develop itself; and the attacks are so formidable, that it is important to guard against the very beginning of the evil. A cerebral or cardiac inflammation would be materially aggravated by the influence of the quinia. The condition of the urine is also an important means of determining how far it may be proper to pursue the tonic treatment. While that secretion continues abundant and clear, and the skin cool and perspirable, there can be no risk. The interruption of the secretion from either of these eliminating organs, or the deep color or turbidity of the urine, would at once indicate the propriety of suspending the quinine.

It is in these cases that we frequently meet with that very formidable complication, inflammation of the larynx, producing all the symptoms of croup. Even in these cases no benefit will result from depletion, or any other depressing agent; dependent on the extension of the specific inflammation from the fauces, it must be relieved by local treatment alone. Emetics of alum or ipecacuanha are the most valuable of our remedies, and may be repeated as often as the urgency of the symptoms requires; care being taken at the same time to afford proper support, by suitable nourishment and stimulants. One of the happiest results I ever achieved, was in the recovery of a child of about two years of age, in whose case the disease was ushered in by convulsions, which yielded to tepid baths, with cold affusions to the head. The disease then ran its regular course, accompanied with much sloughing of the fauces and uvula, and leaving an exceedingly red ulcer. This I treated with the injections recom-

mended above, and was flattering myself with the expectation of a speedy recovery, when the harsh clangor of a croupy cough sounded like the knell of hope. I procured at once a stick of nitrate of silver, fastened in a quill, and, depressing the tongue, thrust it deep into the fauces, with the design of extending the application to the very verge of the glottis itself. A sudden struggle of the child broke off the caustic from the quill, and, to my indescribable horror, one gulp carried into the stomach of the child about two drachms of the caustic. To fail in one's efforts to cure is disheartening enough,—to feel that those efforts, however well meant, have rendered certain the triumph of death, is like being dragged at the chariot wheel to swell the triumph. Determined not to yield without an effort, and saying nothing of the accident, I called for the salt cellar, which was promptly handed me, and compelled the child to take large and repeated draughts of a strong infusion of the chloride of sodium. This of course produced free emesis, at the same time that it rendered insoluble and inert the poisonous mass thus undesignedly passed into the stomach. Whether the result may be ascribed to the action of the caustic, or that of the saline application to the local disease, or, what is more probable, to the oft repeated vomiting, I am not prepared positively to assert. I am disposed to divide the honor between the two latter influences, providentially, though unintentionally applied. Certain it is that most unexpectedly the child recovered.

But the most judiciously planned treatment, though faithfully carried out, will not ensure a successful result, even in those cases which do not manifest any very unfavorable symptoms at the beginning. The impeded deglutition, the labored respiration, the swollen lymphatics, occurring about the end of the first week, or even sooner, all speak of a condition full of danger, while a hard, quick pulse, which generally accompanies this condition, would appear to demand local depletion for the relief of the local disease. You must not allow yourselves to be beguiled even now by this simulation of inflammatory action. The corded pulse tells of irritative action, but not of one which can be removed by depletion, either local or general. Neither would the resort to blisters be a whit more beneficial. Dependent on

the disease of the mucous membrane, it will only yield as that subsides. Happy indeed were it for the patient if it were certain then to disappear. Too often the inflammation results not only in effusion into the cellular tissue, but also in suppuration, either in that tissue or in some of the glands, leaving one of the results of which we shall speak when we come to treat of the sequelæ. This acute glandular enlargement and effusion will yield more kindly to the continuation of poultices and injections than to any other plan. Iodine and the iodide of potassium have been employed both locally and internally, but I believe without any well attested advantage.

The treatment of those cases in which the eruption appears imperfectly developed from the first, or when, after having been well marked, it recedes, or where the force of the attack falls upon the throat, causing great tumefaction and difficulty of deglutition, must be very energetic. In all these cases, this condition evidently results from the overwhelming influence of the poison upon the nervous system. Whether convulsions, or restlessness, or stupor, complicate the case, or mere languor and exhaustion, all are but varying phases of one condition, and that, a condition which is to be removed by appropriate stimulation; and it is in these cases that the capsicum is productive of the happiest results. It was, I confess to you, with great reluctance, I was first prevailed on to resort to a remedy apparently so little appropriate to the treatment of a disease in which the rapid circulation and heated surface seemed rather to call for remedies which should produce a refrigerant impression; and to force a harsh irritating liquid into a throat already inflamed, was, I thought, little short of a refinement of cruelty. The entire failure of the cooling treatment in such cases, led me to test the opposite course, and I can recommend it with entire confidence. Weak animal broths freely charged with capsicum, may be given with great safety, even to the youngest infants; and though it may not—indeed it rarely does—so far rouse the energies of the system as to cause the full development of the eruptive features of the disease, it will so far excite the vital forces as to carry the patient safely through the regular period. Should there be much local disease, it will derive great benefit

from the passage of the broth over it. I have often administered this simple infusion when the stomach rejected the broth, or when I desired to maintain a more constant local impression. The common formula of a teaspoonful of powdered capsicum, the same quantity of common table salt, a large spoonful of vinegar, and a half-pint of boiling water, is an exceedingly good one. Of this, a teaspoonful may be given every hour or two to a child of five years old and upwards, followed by a small portion of broth, or even wine-whey. Brandy and quinine have not the same beneficial influence in these cases that they exert over those we shall consider hereafter. They oppress the nervous centres instead of relieving the load. Where there is great restlessness I have derived advantage from moderate doses of morphia, given in the aqua acetatis ammoniæ, or from the Dover's powder. Wine-whey having more tendency to promote the determination to the skin, may be given in every case with safety, where the quinine and brandy would be inappropriate. The resort to hot and stimulating baths and irritative frictions, and the revulsive treatment generally, which would naturally suggest itself, has never been followed by any advantage so far as I have had opportunity for observation, and the internal use of carbonate of ammonia has also disappointed my expectation.

Under the plan of treatment thus indicated, I have found the cases in which the eruption was irregular, defective, or even entirely absent, yield quite as large a percentage of recovery as those which are accompanied with the most intense degree of cutaneous inflammation. It is worthy of remark that such cases are less liable to be followed by dropsical infiltration of the cellular tissue, though the convalescence is more tedious and imperfect.

(To be continued.)

PENNSYLVANIA HOSPITAL—*Surgical Wards.*—*Service of*  
Dr. Fox.

*Cases discharged since July 1st, 1851.*

					Cured.	Relieved.	Died.	Total.
Abscess of thigh,	-	-	-	-	0	0	1*	1
Bite of dog,	-	-	-	-	1	0	0	1
Burns,	-	-	-	-	0	0	2	2
Concussion of spine,	-	-	-	-	1	1	0	2
Contusions,	-	-	-	-	7	2	0	9
Conjunctivitis,	-	-	-	-	3	1	0	4
Corneitis,	-	-	-	-	0	1	0	1
Disease of thumb, (scrofulous,)	-	-	-	-	1†	0	0	1
“ of knee,	-	-	-	-	1	1	0	2
Dislocations 3, viz :								
Shoulder,	-	-	-	-	1	0	0	1
Hip,	-	-	-	-	2	0	0	2
Fistula in ano,	-	-	-	-	1	1	0	2
Fractures, simple, 26, viz :								
Inferior maxilla,	-	-	-	-	1	0	0	1
Clavicle,	-	-	-	-	3	0	0	3
Scapula,	-	-	-	-	0	1	0	1
Condyles of humerus,	-	-	-	-	4	0	0	4
Forearm, (both bones,)	-	-	-	-	2	0	0	2
Ulna,	-	-	-	-	1	0	0	1
Radius,	-	-	-	-	4	1	0	5
Metacarpal bones,	-	-	-	-	0	1	0	1
Vertebræ,	-	-	-	-	1	0	0	1
Femur,	-	-	-	-	0	0	1‡	1
Patella,	-	-	-	-	1	0	0	1
Leg, (both bones,)	-	-	-	-	2	0	0	2
Tibia,	-	-	-	-	1	0	0	1
Fibula,	-	-	-	-	1	0	0	1
Os Calcis,	-	-	-	-	1	0	0	1
Fractures, compound, 9, viz :								
Hand,	-	-	-	-	1	0†	0	1
Fingers,	-	-	-	-	5	0†	0	5
Leg,	-	-	-	-	0	1**	0	1
Foot,	-	-	-	-	0	1	0	1
Toes,	-	-	-	-	0	1	0	1
Foreign body in nares,	-	-	-	-	1	0	0	1
Gonorrhœa,	-	-	-	-	3	0	0	3
Hydrocele,	-	-	-	-	0	2††	0	2
Inflamed hand,	-	-	-	-	1	0	0	1
Inverted nail,	-	-	-	-	0	1	0	1
Iritis, (simple,)	-	-	-	-	0	1	0	1

\* Exhausted by profuse discharge and diarrhœa.

† By amputation

‡ Complicated with fracture of leg and ribs, and with wound of liver.

|| Bony union ; two months under treatment.

\*\* Amputation of leg was performed ; patient removed two days after by a friend.

†† Complicated with disease of testicle.

					Cured.	Relieved.	Died.	Total.
Iritis (syphilitic,)	-	-	-	-	1	0	0	1
Mania a potu,	-	-	-	-	0	0	2*	2
Onychia,	-	-	-	-	1	2	0	3
Rupture of bladder,	-	-	-	-	0	0	1	1
Swelled testicle,	-	-	-	-	1	0	0	1
Syphilis, (primary,)	-	-	-	-	3	1	0	4
" (secondary,)	-	-	-	-	5	2	0	7
" (tertiary,)	-	-	-	-	0	1	0	1
Tinea capitis,	-	-	-	-	1	1	0	2
Tumor of breast,	-	-	-	-	0	1	0	1
Ulcers,	-	-	-	-	6	0	0	6
Wounds, incised,	-	-	-	-	9	4	0	13
" " of throat,	-	-	-	-	1	0	0	1
" lacerated,	-	-	-	-	9	3	0	12
" gunshot,	-	-	-	-	0	1	0	1
" penetrating,	-	-	-	-	1	0	0	1
" " of abdomen,	-	-	-	-	1	0	0	1
" poisoned,	-	-	-	-	1	0	0	1
					91	33	7	131

One of the cases of dislocation of the hip, was of nine days standing, occurring in a stout Scotchman, aged 63.

The dislocation was upwards and backwards on the dorsum of the ilium, and required one hour to effect its reduction.

Patient was discharged well, fourteen days after.

The other case was that of a boy, aged 13 years. He was brought into the Hospital within a few hours after the occurrence of the accident, and the reduction was effected without difficulty.

Discharged, ten days after, well.

*Fracture of the spinous processes of the first two lumbar vertebrae. Recovery.*

A young woman aged 18, whilst engaged in washing a window in the second story of a house lost her balance and was precipitated on to the pavement.

The accident occurred on the 25th of June, in the neighbourhood of the Hospital, and I saw her within a half hour afterwards. She was suffering excruciating pain in the lumbar region. On examination, the spinous processes of the first and second lumbar vertebrae were found projecting directly backward, and

\* Both hard drinkers; admitted for accidents, one with comminuted fracture of the femur, the other with severe gunshot wounds of the face; delirium manifested itself on the second day after admission, and death occurred within ten days.

by pressure on them *crepitus* could be distinctly perceived. There was no paralysis of the lower extremities, nor did any symptoms supervene afterwards to lead to the suspicion that the fracture had extended any further than through the spinous processes—there were no other injuries. Perfect rest on the back was enjoined, and the free use of morphia resorted to for the relief of the pain. Pain subsided toward the close of the following day. At the end of four weeks from the time of the accident, the union of the fragments was very firm—a considerable amount of callus had been thrown out—and the two spinous processes projected a little beyond the natural curve of the vertebral column.

Patient was discharged well, August 1st, thirty-seven days after the accident.

Her recovery was complete.

*Penetrating wound of the Abdomen—protrusion of Omentum—its removal—Recovery.*

The case of penetrating wound of the abdomen, was attended with protrusion of omentum—the treatment resorted to not being that in ordinary practice, and the favorable result attending it, sufficiently justify a full history of the case.

Mary Ann Lloyd, colored, aged 21, was admitted into the Hospital on Saturday, June 21st, at 11½ P. M., with a stab in the left groin, which she had received half an hour previous, from a person with whom she had some altercation in an Alderman's office. Skin was warm and moist; pulse good; complained of considerable pain. The wound was about three-fourths of an inch long, about half an inch above, and parallel to, Poupart's ligament—a line drawn from the anterior superior spinous process of the ilium to the umbilicus, would exactly bisect it. From it, protruded a piece of omentum of about the size of the palm of my hand, slightly congested, but otherwise healthy in its appearance. Careful efforts were made to return it, and were partially successful; but the restlessness of the patient was such as to force out as much as I would return. The prospect of success caused these efforts to be continued for half an hour, when it was deemed advisable to desist from them; the omentum had then become so much congested that it was not thought even safe to return it by dilating the wound. It was therefore concluded to

cut it off. This was done—having previously passed a double ligature through the mass, close to the integuments, and strangulating it. The strangulating of the omentum was attended with very little pain to the patient. The wound was then closed by interrupted sutures. Within the sutures was included the portion of omentum strangulated by the double ligature. The object of this was, to prevent its return with the ligatures into the cavity of the abdomen. Over the wound was placed a piece of cotton cloth spread with cerate, and retained by one or two adhesive strips. Ordered, Liq. Morph. Sulph. ʒj. To be repeated every two hours, until sleep is induced.

*Sunday morning, the 22d.*—Required but ʒij. of the solution of morphia to induce sleep, which was tranquil through the whole night. Pulse 90, full and strong; skin, moist and warm; tongue clean: still complains of pain in the abdomen. Ordered, Hydrarg. Chlor. Mit. gr. ij. Pulv. Opii. gr. ss. To be repeated four times during the day. Fomentations with hops to the abdomen. Diet, barley water.

6½ P. M.—Has been dozing all day; does not complain of any pain; abdomen perfectly flaccid and free from tympanitis. Omitted the fomentations. Continued the calomel and opium. Pulse 88—full and strong.

*Monday, 23d.*—Slept well through the night. Purged slightly by the calomel. Pulse 95, less strong than yesterday. Tongue slightly furred—complains of slight pain in the side opposite to the wound, but of none in its neighborhood. Abdomen perfectly flaccid. Reduced the quantity of calomel—thus,

Hydrarg Chlor. mit. gr. j.

Pulv. Opii. gr. ss.

To be repeated four times during the day. Diet, same as before.

*Tuesday, 24th.*—Rested well through the night. Pulse 85, no pain or uneasiness—mouth slightly sore. Omitted the calomel. Diet, barley water.

*Wednesday, 25th.*—Still entirely free from pain. Wound has very much diminished in size—there is a slight discharge from the cut surface of the omentum. No tension of abdomen—merely a small ring around the wound, harder than natural. Applied flax-seed poultice—diet, gruel.

*Thursday, 26th.*—On visiting the ward last evening found

the patient walking about with a blanket over her shoulders, assigning as her reason for doing so, that she was tired of her bed. This morning the edges of the wound show some disposition to slough, otherwise the patient is doing well. Pulse natural, no febrile excitement—no tension of abdomen—appetite good. Ordered full diet.

*July 1st.*—Has been doing well since last report. The slough has entirely separated, leaving an ulcer about two inches long and one inch broad: the ligatures of the omentum came away this morning.

*August, 2d.*—The wound has been healed for some days now, having granulated from the bottom—the cicatrix is small, firm, and linear in form. Patient discharged, well.

ADDINELL HEWSON, Resident Physician.

*Pennsylvania Hospital, August 15th, 1851.*

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### BIBLIOGRAPHICAL NOTICES.

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*Quarterly Summary of the Transactions of the College of Physicians of Philadelphia. From May 6th, to July 1st, 1851, inclusive.* Philadelphia: Lippincott, Grambo, & Co., 1851.

This number of the Transactions of the College of Physicians, is filled with excellent papers, and must, indeed, be gratifying to all who feel an interest in the maintenance of an independent organ by this venerable institution. We cannot too strongly commend so useful a publication to the notice of our readers; and we have no hesitation in saying, that it presents the greatest amount of valuable original matter, for the terms of subscription, with which we are acquainted.

The present number contains two highly interesting and elaborate communications from Dr. Pepper, of the Pennsylvania Hospital; one presenting a *case of Cancer of the Lungs and Mediastinum*, the other, on *Lemon-Juice as a remedy in Rheumatism*; a very remarkable *case of Hermaphroditism*, by Dr. Neill; a *case of Rupture of the Gall-Bladder*, by Dr. H. Hartshorne; a case

of *Degeneration of the Liver, and Hypertrophy of the Gall-Bladder*, by Dr. Keller; and a case of *Death post partum*, by Dr. Beesley.

Dr. Pepper's paper on the use of Lemon-Juice in Rheumatism, gives us the details of fourteen cases, in which this remedy was employed in the Pennsylvania Hospital. The results which they present, are decidedly favorable to the treatment in question, in "acute uncomplicated rheumatism." And, even in the sub-acute or more chronic forms, it appears to have afforded marked relief in several instances; whilst under no circumstances, was it productive of an injurious result. Dr. Pepper, however, with characteristic caution, observes that

"The number of cases just reported is entirely too limited to enable us to form any positive conclusion as to the curative powers of lemon-juice in this disease, particularly when we call to mind the numerous and sudden changes by which this affection is characterized, whether abandoned to itself or subjected to the various modes of treatment which have from time to time been recommended. It would have been both curious and instructive to have reported, in connection with the above cases, others of a similar character in which the lemon-juice had not been administered; but I have perhaps already wearied the patience of the college, and must hasten to bring these remarks to a close. I would simply state, however, that, during the month of March, of the current year, two cases of acute rheumatism were admitted into the hospital, both of which were treated chiefly by calomel and opium, with colchicum and magnesia; the first, though complicated with severe endocarditis, was fully convalescent by the end of the twelfth day; whilst in the second instance the relief was more prompt, the patient being nearly well by the expiration of one week. On looking over my notes on hospital cases for the last nine years, I also found many instances of acute inflammatory rheumatism recovering in the course of one or two weeks under this plan of treatment; on the other hand, it is true, there were cases of an apparently similar character reported, in which no such favorable results were obtained; and it would be important to ascertain, by further experience, whether, under such circumstances, the 'acid treatment' would be more efficacious. The very favorable reports from abroad certainly entitle this remedy to the attentive consideration of the profession; and, should it be found not inferior to the other plans of treatment, it would at least have the advantage of agreeable flavor, without, at the same time, impairing the general health, as sometimes happens from the use of more heroic remedies."

Dr. Pepper states that, in most of the instances in which the urine was examined, "it was found to be either neutral or much less acid than in health; whilst at the same time, it was un-

sually clear, and contained but a small amount of lithates; in no instance did it appear to be materially increased in quantity." Dr. Pepper's observations in this particular, coincide with those of Dr. Rees, the originator of the treatment.

Dr. Pepper offers no opinion as to the *modus operandi* of the lemon-juice; excepting that he attaches little influence to the citrate of potash which it contains. We find in a late number of the London Lancet, several cases of acute rheumatism reported, in which Dr. Rees employed citric acid, in place of lemon-juice, with a view of elucidating the question—what agency is attributable to the citrate of potash contained in the lemon-juice? One scruple of citric acid, dissolved in mint water, was administered every fourth hour, after a mercurial purge. He considered that the convalescence of the patients subjected to this treatment, was more tardy than with those treated by the lemon-juice. But this circumstance, he is inclined to think, may have depended on the peculiar state of the weather prevailing in London, this spring, which was very unfavorable to persons recovering from severe disease. In the practice of Dr. Keating, of the St. Joseph's Hospital, Philadelphia, pure citric acid exerted the same beneficial effects as lemon-juice, in cases of rheumatism.

Dr. B. H. Coates, who took part in the debate which was elicited by the reading of Dr. Pepper's paper at the College of Physicians, is of opinion that there is

"An error in the chemistry of the theory or explanation, by which good effects are demanded of the vegetable acids, in the treatment of rheumatism. The vegetable acids are not oxidating substances when introduced into the animal economy; they are de-oxidating or dis-oxygenizing substances. They carry more oxygen out of the animal body than they bring into it; and this loss is supplied at the expense of the blood. It is granted that these substances are never found among the excreta; the matters of which they are composed are, when discharged, combined in the form of carbonic acid and water, either separate, or having the carbonic acid combined with alkalies or lime, found in the composition of the fluids. When converted into carbonic acid and water, the vegetable acids always absorb oxygen, necessary for the composition of the two resulting products.

This corresponds with the chemical theory that gouty matter is in want of further oxidation preparatory to its discharge by the kidneys; and with the usual experience, that vegetable acids render gout worse, or produce it. The analogy of gout to rheumatism, on which the speaker did not then insist, is adverse to the hope of benefit from the use of vegetable acids in rheumatism."

Dr. Coates considers any good effects that may result from the use of lemon-juice in acute rheumatism, to depend entirely on the *sedative* and *refrigerant* action of the remedy, and to be effected in spite of its deoxidating action. The *modus medendi*, he deems the same, as with "the moderate and rational use of bleeding and of the nitrate of potassa." And these views he finds agree with the observations of Dr. Pepper, who derived little advantage from the lemon-juice in *chronic*, but only generally or frequently so in *acute* rheumatism. "Acute rheumatism is rheumatism accompanied by fever; and the use of sub-acid drinks, for the sake of their sedative effects in fever, is familiar, and has descended to us from former ages. \* \* \* \* \* In this, way Dr. Coates sees no impediment to lemon-juice being serviceable in acute rheumatism, doing some harm, but more good."

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*An Address on Medical Jurisprudence, delivered before the Fellows of the Massachusetts Medical Society, at the Annual Meeting, May 28, 1851.* By DAVID HUMPHREYS STORER, M. D. Boston, 1851.

This address is a well-timed and pointed appeal in behalf of the claims of *Medical Jurisprudence* to an increased share of professional attention. Dr. Storer justly observes, that, while

"With all the other departments of the profession, the young man, presenting himself for his final examination, may be sufficiently well acquainted, to satisfy the Faculty before whom he appears, that he is competent to commence the responsibilities of his career, upon the subject to which I have referred, in some of our schools he is *not examined*: not a question is asked him. He may have listened to a few general lectures during his pupilage; but he has pursued no methodical course of instruction,—he has studied no accurate, reliable author,—he has had no recitations upon the subject; without which, in this, as in all other branches, lectures are of comparatively very little value. And it is only when he is summoned to give his testimony in a Court of Justice, that the young physician finds himself forming his opinion, and searching for authorities to support it; or perhaps, I might with more propriety say, collecting published facts upon which he may found an opinion."

It is, indeed, surprising that the important subject of *Medical Jurisprudence* should be so completely over-looked in some of our Medical Schools. And we cannot but welcome with

satisfaction this appropriate discussion of a very desirable reform.

The following forcible remarks on the toleration of irregular practitioners, from Dr. Storer's address, we commend to general perusal. They are no less applicable to our own meridian than to that of Massachusetts :

“ Much yet remains to be done to perfect our system of medical police. In the year 1781, several of the most distinguished physicians of the State associated themselves together, and obtained an act of incorporation from the Legislature, under the name of the ‘Massachusetts Medical Society.’ By their charter, they are expected ‘from time to time to prescribe such a course of medical and surgical instruction, and such qualifications as they shall judge requisite for candidates for the practice of physic and surgery, and shall cause the same to be annually published.’ This course is pursued; and well-educated young men yearly present themselves to the proper officers to be examined, and, proving themselves to be competent, are allowed to become members of the Society. But we look in vain in the chapter ‘concerning the practice of physic and surgery,’ in the State's laws, for a restraint upon irregular practitioners,—for a prohibition, that none save well-educated men, and such as have shown their capability by undergoing a thorough examination at the proper tribunal, shall be allowed to act the part of a physician or surgeon. And the young physician, a member of the Massachusetts Medical Society, who has been able by the most strenuous efforts,—by great self-denial,—oftentimes by embarrassing himself for years, in a pecuniary point of view, to reach the goal for which he has so long and so ardently striven, finds, upon entering the threshold of his profession, that he is surrounded by ignorant, uneducated, unprincipled men, who have no hesitation in publicly proclaiming that they can cure all diseases; and that, too, without resorting to any of those remedies against which they know the people have an insurmountable objection,—men who deluge the community with their hand-bills and certificates of the most remarkable success, prepared for the occasion, or testified to by bribed or irresponsible persons.

In no respect is our medical police more inefficient than in this. The evil I speak of has become a public nuisance, and as such it should be treated. A great portion of every community are exceedingly credulous,—believing most fully whatever may be stated, which, to an enlightened mind, savors of impossibility. The more ridiculous and improbable the accounts, the more readily do they attract attention; and the greater the audacity of the narrator, the more certain, for a period, is he of succeeding.

I have known a delicate female, wasted with phthisis, and requiring all the sympathy and attention of her most devoted friends, persuaded to place herself under the care of one of those wretches who blasphemously warrants a cure, and subjected to the most active treatment that

could be devised. A few days only were required to free her of her misery.

I have seen a strong day-laborer, treated for inflammation of the bowels with the most stimulating drinks, crying in his agony for cold water, and supplied with potations of rum and cayenne, and compelled, in his intervals of repose from the most acute suffering, constantly to repeat the dose.

A few years since, a villain, who was said to have graduated from a Southern State prison, practiced in our metropolis with immense success. Mercury and venesection, in his hands, controlled all diseases. The former in spoonful doses, and the latter to the utmost limit of the patient's strength, were employed indiscriminately. To use his own words, openly expressed and openly boasted of, "he had drawn barrels of blood." Gross as were his proceedings, numerous as were the victims of his malpractice, there he remained outraging the community, until the relatives of a patient he had imposed upon and ruined made a public exposition of the case.

But why should I adduce individual instances to prove my position, when, with others equally striking, most of you are undoubtedly familiar? Besides, the physician, as such merely, can do but little in this hoped-for reform. However anxious he may be to do his duty as a good citizen, to exhibit the villainy which exists on the one hand, and the unavoidable misery consequent upon it on the other, but few can appreciate his motives, or will give him credit for disinterestedness; and he is literally compelled not only to see the grossest impositions inflicted upon his fellow-men, but to feel also, that any interference on his part is the surest means of increasing them. It should be the duty, therefore, of those whose education and condition in life enable them to observe and comprehend the existing evil, to endeavor to remedy it. The better part of the community should act in unison upon this subject, and then the object could be accomplished."

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*Lectures to a Candid Inquirer, on Animal Magnetism.* By WILLIAM GREGORY, M. D., F. R. S. E., Professor of Chemistry in the University of Edinburgh. Philadelphia: Blanchard & Lea. 1851.

This book is a lamentable specimen of folly and credulity, from a quarter whence better things were to have been expected. It is, indeed, humiliating to find a person who occupies the professional and scientific position of Dr. Gregory, assuming the championship of charlatanism, and lending the sanction of the venerable university with which he is connected, to what all right-minded members of his profession view with unmingled contempt

and scorn. We really cannot understand what the professional feeling of the ancient Delphos of medicine can be, when the Professor of Chemistry in the University takes up the mantle of Mesmer, and the President of the College of Physicians\* openly avows himself a disciple of homœopathy.

Dr. Gregory's book is, we are bound to say, apparently written in good faith and candor; and we must give him credit for being a true believer. He betrays, however, a degree of credulity, which in a man of his pursuits and presumed train of thought, is, indeed, astounding; not only admitting and defending every variety of the mesmeric humbug—clairvoyance, phreno-magnetism, and all—but gravely narrating and adopting the most monstrous stories, a belief in which overthrows every received opinion, and implies a rejection of all knowledge, natural and revealed.

It would be absurd to deny, that the influence of strong-minded upon weak-minded persons is capable of producing, under certain circumstances, a train of irregular nervous phenomena, which we cannot with entire satisfaction explain. These phenomena have been seized upon and made the basis of the most reckless pretensions and falsehoods, which have been again and again exposed, and as often revived. It is useless to continue the task of unmasking these delusions, for argument and reason have no weight with the excitable and weak-minded persons who entertain them.

We give some samples of Dr. Gregory's twaddle and silly stories. He proposes the name of *odyle* for the principle heretofore termed animal magnetism, which he assumes to be "universally diffused, like heat, light and electricity." Like them, "it tends to a state of equilibrium, and its external manifestations seem to depend chiefly on the disturbance of this state of equilibrium." While ranking, however, *odyle* with the known imponderable agents, he has the grace to admit "that we know comparatively little of the laws by which it is regulated," particularly, as "hitherto observers have not been able to examine the most important facts by the aid of their own senses, but have had to trust to the sensations of others." It is also admitted, that "we do not yet possess any means of collecting, accu-

\* Dr. Henderson.

mulating and concentrating the odylic force, as we can do in the case of magnetism and electricity." "Nor have we yet obtained a convenient and accurate means of measuring the quantity or intensity of odylic force."

As an apt conclusion of this rhodomontade, we select one from numerous cases illustrative of "sympathetic clairvoyance," which Dr. Gregory relates, as entitled to implicit credence. "Sympathetic clairvoyance" is the power of reading the thoughts or perceiving the state of health of persons *en rapport* with the sleeper. And the relation in question is established either directly by contact, or indirectly by means of their writing or a lock of their hair! By the aid of handwriting, one of Dr. Gregory's *clairvoyantes* is made to detail the thoughts and actions of persons of various times and countries, including Mary, Queen of Scots, and other notabilities. The following pretended account of Sir John Franklin is, we must say, the most impudent specimen of humbug we have ever met with. And we believe that information received since the publication of Dr. Gregory's book, leaves little doubt that, far from Sir J. F.'s having been "met and relieved" last winter, his ill-fated expedition had long previously been destroyed.

"It is pretty generally known, that this clairvoyante was tried with the writing of Sir John Franklin, and a part of what she said has appeared in the newspapers. I had the opportunity of becoming acquainted with what she did really say, and, although of course the greater part of it cannot be verified until the return of Sir John, yet I am bound here to testify, although she has probably mixed up and confused many things, which we have not the means of distinguishing, that E. has said nothing concerning him which may not prove correct. It appears that some clairvoyants, of whom I know nothing, went so far as to predict the return of Sir John during last autumn. If such predictions were made, by genuine and honest clairvoyants, I conjecture that they have been of that class, who are strongly affected by sympathy with the feelings and wishes of those who consult them, which feelings and wishes they, as it were, reflect. But this is not the case with E. She has made no prediction in the matter, but has simply, at various times, with the aid of Sir John's handwriting, gone, in her phrase, to see him. She was not told, and does not, I believe, even yet know, whose writing it was; but she found the writer in one of two ships, fixed in ice, and surrounded with walls of snow. These ships she first saw in the winter of 1849--50, I believe; I saw several of Dr. Haddock's letters about it in February and March, 1850. Since E. had been right in so many cases at a distance, it was proba-

ble that she was also right in this one. She described the dress, mode of life, food, &c. of the crews. She saw and described Sir John, and said that he still hoped to get out, but was much surprised that no vessels had come to assist him. She frequently spoke of his occupations, and when asked the time of day, found it either by looking at a time-piece in the cabin, or by consulting Sir John's watch. During the winter and spring of 1849—50, and part of the summer of 1850, she uniformly indicated the same difference of time, which I cannot at present give precisely, but which was nearly seven hours. At whatever hour she was magnetised and sent there, she always made the same difference. Nay more, when the time there was nine or ten A. M. (four or five P. M. at Bolton) she would say that such was the hour, but that it was still dark, and lights were burning in the early part of summer. Now it is quite absurd to suppose that this totally uneducated girl has any notion of the relation of longitude to time, or of the difference between an arctic day and one in our latitude. E. also being shown the handwriting of several of the officers of the expedition, found and described them. One was dead (shelled, as she said,) when she was asked. Another, at a later period, was dangerously frostbitten, but recovered. She said, that in one of the ships the provisions were exhausted, but that the other contained provisions. She described the fish, seals, and other animals hunted and killed for food and oil by the crews. Of, or rather to, one officer she said that he was the doctor, although not dressed like a doctor, but like the rest, in skins; that he was a first-rate shot, and was fond of killing animals to preserve them. (This is really the case with Mr. Goodsir, whose writing she was then examining.) She added a multitude of curious details, for which I have no space, and they will no doubt be published by Dr. Haddock. But I may mention, that on a Sunday afternoon in February 1850, she said it was about 10 A. M. there, and described the captain (Sir John) as reading prayers to the crew, who knelt in a circle, with their faces upwards, looking to him, and appearing very sorrowful. She even named the chapter of St. Mark's gospel which he read on that occasion. She also spoke, on one occasion, of Sir John as dejected, which he was not before, and said that the men tried to cheer him up. She further spoke of their burning coarse oil and fish refuse for warmth, and drinking a finer oil for the same purpose. All this time she continued to give the same difference of time, from which the longitude might be calculated. This time, seven hours, or nearly, from Bolton, gives a west longitude of about  $100^{\circ}$  to  $115^{\circ}$ , which corresponds very well with the probable position of Sir John. But at a later period, all of a sudden she gave a difference of time of somewhere between six and seven hours, indicating that the ships had moved eastward. She was not, after this, quite so uniform in the difference of time as before, and seemed not to see it so clearly; but she persisted that they had moved homeward, and if we take about  $6\frac{1}{2}$  hours as the later difference, this would indicate a longitude of about  $97^{\circ} 30' W.$  After this change, she also said that Sir John had been met and relieved, and has always since then seen three ships, which, for a long time past, are said by her

to be frozen up together. The last observation of which I have heard, 17th February 1851, gave a longitude of  $101^{\circ} 45'$  W. At the same time, from Captain Austin's writing, which has also been frequently tried, she gave for him the longitude of  $95^{\circ} 45'$  W. She does not know whose ship it is, that according to her, has met with Franklin, but she still speaks of three ships together. I should add, that when E. has been sent there at such an hour and season that it was night in those latitudes, she has, quite spontaneously, described the aurora borealis, which she once saw, as an arch, rising as if from the ground at one end, and descending to it again at the other. From this arch, colored streamers rose upwards, and some of these curved backwards. She was much surprised and delighted with it, and asked if that was the country the rainbow came from. She had never been told anything whatever about the aurora, and knows nothing of it."

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*Elements of General and Pathological Anatomy, presenting a view of the present state of knowledge in these branches of science.* By DAVID CRAIGIE, M. D., F. R. S. E. Fellow of the Royal College of Physicians, of Edinburgh, &c. &c., *Second edition, enlarged, revised and improved.* Philadelphia, Lindsay and Blakiston, 1851.

The new edition of Dr. Craigie's admirable work comprises all that was contained in the previous issue, with such rectifications as the advances of the science rendered necessary, with the addition of two new books, one on the structure and morbid state of the glands, and the other on the structure and morbid states of the lungs and heart.

To those who are familiar with the previous edition, we need say nothing in commendation, its merits being fully recognised. In the work before us, the same arrangement, based upon the distinctions of the component tissues of the animal body as derived from the similitude and difference of their anatomical character, and which was so advantageously used in the first edition, is maintained. The object of the author to communicate precise and useful information in a perspicuous and methodical manner has thus been accomplished, and the lover of this department of science, will find prepared to his hand, an accurate representation of all that is known in it.

*Of Happiness in its relations to Work and Knowledge. An Introductory Lecture delivered before the Members of the Chichester Literary Society and Mechanics' Institute, October 25th, 1850, and published by their request.* By JOHN FORBES, M. D., F. R. S., Physician to her Majesty's Household. Philadelphia: H. Perkins. 1851.

Of every creature under heaven, the unceasing demand has always been "who will show us any good?" Every avenue to happiness is therefore thronged with earnest seekers for that "great good," and every prophet who professes to have seen it, and to be able to indicate to others the course in which it may be pursued with reasonable hope of success, is sure of an anxious crowd of followers. Unfortunately, all are too prone to think it lies in some other direction than that in which their own path leads them, and are, therefore, ready to bolt over every hedge and ditch that bounds their regular career, in hope of avoiding rough places they see in prospect, or the recurrence of difficulties which they have already surmounted at an expense of toil they are reluctant to feel liable again to exert. More attractive works than "searches after happiness" could not present themselves. Yet few who are longing for it will think that its "Relations to Work and Knowledge" are so intimate as are represented in the Essay on this subject, from the pen of Dr. Forbes, whose title stands at the head of our notice. The inimitable Flaccus, when looking back from the highest point of literary honor and elegant ease, upon the scene of earlier joys on the paternal farm, could assert of those who cultivated the fertile vales of Italy, "Nimis beati si sua bona norint." And the poet philosopher, from the chair of a Scotch University, could announce a truth which first fell upon our ears, in the short intervals between toil, afforded to a half-grown boy on a farm cultivated by the personal exertion of the family:

"From labour, health, from health, contentment springs;  
Contentment opes the source of every joy."

But, unfortunately, these and the numberless other testimonies to the effect of labor in promoting that happiness we all desire, come from sources which are liable to question; as the witnesses do not give that unerring test of confidence in the truth of their

own teachings, which practice furnishes, but unfortunately, must be comprised in that large class of teachers, who "point the way they never mean to go."

Yet in nothing do observation and practical philosophical induction more accurately coincide in their teaching. The energetic activity of early life, whether of the lower animal, or that connecting link of the animal and spiritual existences, man, displays itself in exertion, for which no motive can be conceived, except the mere gratification which arises from putting forth of power. Who does not accord to this period the epithet by which it is universally recognized, of "Happy Childhood"? The very memory of it is "redolent of joy and youth," and casts its reflected light with softened rays, over the else dim evening of mortal existence, and converts the very vapors of the approaching night into trophies of beauty as they float around it. But who would, for a moment, dream of the happiness of children separate from exertion? Every power, mental and physical, is brought into active play; perceptive, imaginative, reflective powers, are all busy. Nor is that combining power, by which all are brought to bear upon some effectual result, held in abeyance for future use. How many abortive schemes are brought to the test of actual experiment! How quickly is each unsuccessful effort followed by another and another still!

In manhood, too, we ever find that the sanguine temperament which retains most resemblance to youth, is most productive of available enjoyments to its possessor. But it is not from observation only that we derive the knowledge of this truth. It must be so from the necessity of the case. The fitness of things requires it. Toil, mental and physical, is required to develop the resources which are treasured up in the bosom of created matter, for the benefit of animated nature; and, whether it be the uncertain soaring of the butterfly on gaudy wing, the direct flight of the bee to the treasured nectar, or the combined mental and corporeal effort of man to bind the lightning to his service, and bring the winds into subjection to his power, active effort, positive toil, are everywhere made necessary to securing that which is appropriate to the support of each grade in animal existence. Even rest can have no sweetness unless preceded by the labor which requires its refreshment.

Happiness is not found in any extent of acquisition, and this is as true of mental as of physical treasures. The philosopher who should attempt to retire on a competency of knowledge, would present a spectacle quite as pitiable as that afforded in the pages of Dr. Forbes, and too often witnessed by wary observers, of the retired mechanic, merchant or professional man. It is only as knowledge attained affords a new point on which to rest the ever active mental lever, and move fresh obstacles to onward progress, that it confers happiness; and the moment we reached the point beyond which nothing more was to be known, we should be as wretched as

“He who his tiara tore,  
And wept for want of other worlds to conquer.”

Dr. Forbes, lecturing before a body which prohibits the introduction of religion or politics, is careful to avoid treading on ground which might be considered questionable, from its relation to either subject. The only point in which we are disposed to hesitate in adopting his views, is to be found where he considers the relation between labor and happiness so intimate, that even vice may not separate them. At least, such is the construction of which we think his language is susceptible; though writing, as we do, without access to the pamphlet, merely from the impression made by a careful perusal, we are unable to quote it accurately. There certainly is a temporary gratification of some individual passion or desire which may be said to afford pleasure. But we question the propriety of that definition of happiness which would describe it as merely prolonged pleasure. It is one of those things which it is more easy to comprehend than to explain. It is so intimately allied to the sensations and emotions, that it is difficult to bring it within the scope of verbal definition. We should be inclined to assert, that, while pleasure results from the healthful exercise of each of the varied organs of the body and faculties of the mind, happiness is the aggregate result of the combined and harmonious action of the whole. Its degree varies in proportion to the harmony which is maintained, and is higher and more refined just in the degree in which the nobler elements of our compound being are allowed

their proper preponderance. While, then, we recognize a Creator, by whose wisdom all things are arranged as

“Parts of one stupendous whole,”

we must assume that *he* is likely to have the largest amount of happiness, who best fulfils the duties of the position in the world to which he has been assigned; and with the retrospective poet, who sings of the happiness of earth from the seats above, admit that “Where duty went, she went.” The heathen poet gives to “*Mens sibi conscia recti*,” the highest point in the scale of enjoyment.

When, then, we regard man as a compound creature, and refer to his animal, intellectual, and moral endowments, we must take the ground that each of this series of faculties must be brought into actual exercise, to open every avenue of enjoyment which is his privilege; and, also, that the highest enjoyment must be commingled with the nobler faculties. The man who sinks his intellectual and spiritual nature, may attain to animal enjoyment. He that cultivates his intellectual power, will add to this the higher gratification of intellectual delight. But he who, not unmindful of these, roams abroad through the fields of regulated animal enjoyment, and soars, at will, into the higher regions of intellectual space, realizes that there is beyond, an unlimited expanse, filled with suns—of some of which the light twinkles in the blue serene, while of others, no ray has yet travelled down to our dull planet,—and has a source of enjoyment opened up to his contemplation, which leaves far in the dim distance of earthly shade, the highest point to which the devotee of animal or intellectual pleasure has ever attained. *Perfect happiness is to be found in the full play of ALL the powers of man.*

Although not strictly within the limits of criticism in a Medical Journal, we have been induced to bring the essay whose title heads this article before our readers, and to commend it to them as a chaste and classical production of one whose name has long been associated with the literature of our profession. And we offer our thanks to Mr. Perkins for placing it within the reach of all. While the American edition of this little work, is worthy of much praise for its neatness, we must be allowed to enter our solemn protest against the curtailment of the original,—or rather against the reason given for the omission of a part. It is a libel on the

reading community of America, to infer that it will pardon the leaving out of the "Latin." Print it, and let him who can, read, and let it stand as an incentive to him who can not, to put forth his "Labor" to acquire that "Knowledge," and in doing so he will find "Happiness."

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*The Microscopist; or a complete Manual on the use of the Microscope: for Physicians, Students and all lovers of Natural Science. With Illustrations. By JOSEPH H. WYTHES, M. D. Philadelphia: Lindsay & Blakiston. 1851.*

The above is the title of a neat duodecimo volume of one hundred and eighty-two pages, intended to fill a deficiency long felt by those desirous of pursuing microscopy, yet who were unable to obtain access to the more elaborate treatises on the subject. It contains fourteen closely printed chapters, and is handsomely illustrated by wood engravings. A brief enumeration of the contents will show the amount of material contained within its limits. Chapt. I. The history and importance of microscopic investigation; Chapt. II. The microscope; Chapt. III. Adjuncts to the microscope; Chapt. IV. How to use the microscope; Chapt. V. On mounting and preserving objects for examination; Chapt. VI. On procuring objects for the microscope; Chapt. VII. Test objects; Chapt. VIII. On dissecting objects for the microscope; Chapt. IX. The cell doctrine of Physiology; Chapt. X. Examination of morbid structures, &c.; Chapt. XI. On minute injections; Chapt. XII. Examination of urinary deposits; Chapt. XIII. On polarized light; Chapt. XIV. Miscellaneous hints to microscopists. It will thus be seen that the student and beginner have presented to them in a cheap form an amount of matter that, we are sure, will whet their appetites for the more elaborate treatises on the various subjects; and if they be true lovers of the science, they will not stop until they have mastered all.

In glancing over the chapter on minute injections, our attention was arrested by one or two matters of detail, wherein slight inaccuracies have occurred. For instance, on page 139, the author, in describing the "chemical process" of making minute injections by throwing into the vessels first the solution of bi-

chromate of potass, and then following it by an aqueous solution of acetate of lead, describes it as due to M. Doyere, and first published in the *Comptes Rendus* for 1841. In the number of the American Journal of Med. Sciences for Aug., 1833, p. 353, the author will find a paper by Prof. Horner, in which he describes a mode of making fine injections by the use of solutions of sulphate of iron and prussiate of potash, as well as that by chromate of potash and acetate of lead. The suggestion of their use is there credited to Dr. Goddard of this city. Its assumption by M. Doyere is a fair illustration of the story of Columbus and the egg! Again, on page 140, he quotes Dr. Goadby's paper upon the same process with the addition of gelatin, which was copied into this journal, with the corrections of Dr. G., in March, 1850, wherein Dr. G. "suggests the substitution of the *nitrate* for the *acetate* of lead, as we would then have, in the liberated nitrate of potash, a valuable auxiliary in the process of preservation." If we are not very greatly mistaken, Dr. Goadby's own experience now will controvert this, as the nitrate of potassa dissolves the chromate rapidly, and in a few hours destroys the injection.

One other point, also, and we have concluded all in our notice that is not praise. On page 141 it is said that another plan has been *suggested* (the italics are our own) by Dr. Goddard, viz., that of suspending finely levigated coloring matter in sulphuric ether and injecting the fluid into the vessels. The above-mentioned plan has been most successfully *used* by Dr. G., as well as by many others in this and other cities, and is therefore a *settled fact*, and not a mere suggestion. The author's failure in its use, we suspect, arose from his not using ether enough, under which circumstances it will sometimes clog up the vessel from the too early deposition of the coloring matter. The original paper, with full directions, will be found in the Examiner for Dec., 1849.

With these one or two exceptions, we have derived sincere pleasure from the perusal of this little work, and we earnestly commend it to all who are desirous of obtaining information in this most interesting and useful department of medical science.

*Minutes of the Proceedings of the Medical Society of the State of Georgia, at its second Annual Meeting, held at Atalanta, on the 9th April, 1851. Savannah, 1851. pp. 30.*

The late meeting of the Medical Society of Georgia appears, from the "Minutes of the Proceedings," to have been well attended, and to have passed off with much harmony and spirit. Dr. Arnold, of Savannah, was chosen President, with Drs. Means and Campbell, as Vice Presidents; Drs. Quintard and Nottingham, Secretaries, and Dr. Alexander, Treasurer. Standing Committees on *Medicine, Surgery, Obstetrics, Hygiene, and Indigenous Botany*, were appointed, with Drs. Bulloch, Campbell, Miller, Stewardson, and Quintard, respectively, as Chairmen. Appended to the transactions of the Society, are an abstract of a report on "the character of Education necessary for the Physician," by Dr. Ford, and an address by the President, Dr. Arnold.

Dr. Ford's recommendations on the subject of the preliminary education which should be required of Medical Students are elevated and judicious. He dwells strongly, however, on the necessity of legislative interference to attain any desirable reform in this particular.

"Whilst the Committee entertain the opinion that of all the subjects which have occupied the attention of the National Association, there is none of equal importance to this,—they are utterly at a loss to make any distinct propositions on the subject. The hopelessness of any efficient measures to accomplish this end, within the jurisdiction of our Society, arises from the opinion that the root of the evil lies far beyond our reach—it is to be found in the absence of all legislative protection of the profession, and the positive recognition by statute of every kind of practitioners of Medicine. With this legislative invitation to ignorance, incapacity and worthlessness, to come in and swell the ranks of our profession, and with that easy courtesy of society, through which any may attain the highest title of the profession, any attempt to demand a good general education as a qualification of pupilage, either in private offices or in the Medical Colleges of the State, would but increase the evil."

These views are certainly sound. *Reform* is an idle word, until the regularly educated practitioner is sustained by the strong arm of the law. And we believe that united and determined effort on the part of the profession, can obtain from our State

Legislatures the legal protection which is necessary to the improvement of our body. The concert of purpose and action on which the accomplishment of this result depends, will, we trust, grow out of the State organizations which have been so auspiciously brought into existence by the National Medical Association.

Dr. Arnold's address on "the reciprocal duty of Physicians and of the Public towards each other," is a manly and sensible effort, which cannot fail to have the best effect both in and out of the profession. He takes no half-way ground in his requirements from aspirants to the study of medicine, but boldly proclaims the opinion, that a thoroughly liberal preliminary education is the only basis upon which proper medical attainments can be built. "At the very least, in addition to a thorough English education, he would require from a young man undertaking the study of medicine, that he should be well versed in the Greek and Latin languages." In commenting on the duties of the Public towards Physicians, Dr. Arnold alludes, with admirable force and temper, to the many difficulties which popular prejudice throws in the way of professional improvement and advancement—the impediments to the study of practical anatomy—the opposition to the registration of births, marriages and deaths—the legislative privileges granted to every description of quacks, &c. We should be pleased to have room for his remarks on this point entire, and we trust that his address will have a general as well as professional circulation.

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## THE MEDICAL EXAMINER.

PHILADELPHIA, SEPTEMBER, 1851.

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The Medical News and Library, for August, attempts to show that the editorial remarks in our July number, in reference to the action of the National Medical Association upon the report of the Committee on Obstetrics, were predicated upon a misconstruction of the course actually taken. The News gives the following version of the occurrence:

"After the report of the Committee on Obstetrics was read, a delegate stated that some of the statistics referred to in the report were not reliable, and on one or two other points comments were made by other gentlemen. Thereupon the chairman of the committee requested that the report might be referred back to the committee for correction; and, on motion of Dr. Robertson, the report was recommitted. This course was strictly parliamentary, and the Association could not refuse the committee permission to make such alterations as subsequent information induced them to believe to be proper. They were the responsible party, and the judges in the matter, not the Association. The next morning the report was again presented, with some explanations, and with the statement that certain parts had been erased."

We find, however, upon careful examination of the various reports of the *Proceedings*, including that furnished in the June number of the News, that our cotemporary is quite in error in throwing the responsibility of the transaction upon the Committee on Obstetrics. The following extract from the official report of the *Proceedings*, is affirmed by Dr. Robertson, in a pamphlet which he has lately issued, to be the only accurate and authentic report published:

"Dr. Storer, of Ms., Chairman of the Committee on Obstetrics, presented and read the report of the Committee.

"On motion of Dr. Robertson, of South Carolina, the report was recommitted to the Committee, and made the special order for the morning session."

And Dr. Robertson informs us that:

"At the time of making this motion, he stated distinctly, that it was made to give the chairman an opportunity of striking out the statistics of Dr. Ramsay, as it had been asserted, on the most undoubted authority, that they were not reliable."

The motion of Dr. Robertson, therefore, as *adopted* by the Association, was precisely an instruction to the Committee on Obstetrics to strike out from their report statistics which the Association deemed unreliable. We really cannot understand how our cotemporary could assert that "the Association expressed no opinion on the subject."

We are placed, by our cotemporary, in the position of "censuring the Association." This is affixing an application to our remarks which was neither called for nor warranted. And we must beg our cotemporary not to give unnecessary point to our language. We certainly expressed regret at what appeared to have been a hasty proceeding at the Charleston meeting, the full bearing of which could not have been appreciated. And, without intending the slightest disrespect to the Association, we must re-affirm our previous impressions. We cannot see the propriety, or justice, of calling in question the veracity of an absent person, (who had in no way obtruded himself upon the notice of the Associa-

tion,) upon vague conjectures, and indefinite surmises. And we are satisfied that, even if the statistics in point could have been fairly *proven* to be exaggerated, it would have been far wiser to have avoided this public scandal and altercation. Besides, there are grounds for attributing the movement against our correspondent to pique growing out of a family feud. Personal assaults generally spring from personal animosities, and seldom advance the ends of truth and justice.

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#### MONUMENT TO JENNER.

A Committee, of whom Dr. Conolly, of Hanwell, is Chairman, and George Vere Irving, Esq., Hon. Secretary, has recently been formed, with a view of raising subscriptions for the purpose of erecting a bronze statue of Dr. Jenner, by Wm. Calder Maxwell, A. R. A., to be placed in some public situation in London, as a tribute *from all nations* to the memory of that distinguished philanthropist and eminent benefactor of mankind. With this view, a number of prominent individuals, at home and abroad, have consented to serve on the Committee, and an anxious desire is expressed that the funds of the proposed undertaking "should flow from persons of every station in society, and they, (the committee,) will, therefore, be happy to receive the smallest as well as the most liberal donations."

In our next number we may be able to state further particulars, with the names of those in this country who have consented to serve on the General Committee, and to whom subscriptions may be paid.

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#### OBITUARY.

Died, at Wilmington, N. C., on the 27th of June last, Dr. GEORGE LILLINGTON, aged 24 years.

Dr. Lillington, whose early death is recorded above, was a young man of high promise and brilliant prospects. He fell a victim to a typhoid fever, contracted during fatiguing professional occupations. He was ardent and enthusiastic in the pursuit of knowledge, and warm and generous in his friendships. His preceptor offers this brief tribute to his memory.

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#### MEDICAL NEWS.

MEETING "OF THE MEDICAL ASSOCIATION OF WESTERN PENNSYLVANIA AND EASTERN OHIO."—Pursuant to previous notice, the above named organization held its second meeting in the Masonic Hall, at Sharon, Mercer Co., Pa. The Association having been called to order by the President, DR. JOHN BASKIN, of Mercer, the minutes of the pre-

liminary Convention held in Mercer, Pa., in May last, were read and approved.

The committee to whom had been entrusted the preparation of a Constitution and By-Laws for the Association, reported.

The report was received, and, its several sections having, on motion, been separately considered and voted upon, it was finally adopted and ordered to be transcribed into a book proper for the purpose, and the names of the members of the Association to be subscribed thereto. The preamble and the 1st and part of the 2d article of the constitution as adopted, specifying the objects, the title and the qualifications requisite for membership in the Association, are as follows, viz: "WHEREAS, We believe that the interests and prosperity of the medical profession, the progress and elevation of medical knowledge and science, and the welfare, health, and interests of the whole community, require a livelier spirit, a better acquaintance, more extended professional intercourse, and greater and more concerted action on the part of physicians, we do, therefore, now organize ourselves into a society that shall have for its great object the accomplishment of such ends, and adopt for our government the following constitution and by-laws, viz:

ART. 1st. SEC. 1st. This association shall be known and designated by the name and title of "The Medical Association of Western Pennsylvania and Eastern Ohio."

SEC. 2d. Any regular physician who has pursued a course of medical studies under the tutorship of a physician in good standing, and has attended one or more courses of lectures in a Medical School in good repute, and who, moreover, at the time of his application for membership, shall be actively engaged in the practice of his profession, shall be eligible to membership; (*provided*, that if he has not received a medical diploma from the school he may have attended, he shall, preparatory to being admitted, prepare a thesis on some medical subject, and pass favorably and creditably an examination on the same before the censors or a committee appointed by the President for that purpose,) and all physicians who have received the honorary degree of M. D. from a medical school in good standing, or who may have been in active practice for the last fifteen years, and who recognize and are governed by the principles and standard authorities of the regular profession, and conform to its code of ethics, as put forth by the American Medical Association, shall be eligible, and none others.

SEC. 3d. No irregular practitioner, under whatever name he may be classed, and no regular physician who uses or recommends any quack medicine or patent remedy, or who condescends to resort to finesse or trickery to gain practice, or who pretends to the possession and use of any extraordinary and secret remedies, or who will consult with, or in any manner countenance or encourage any irregular practitioner, shall be eligible to membership, and any member who shall be guilty of such practices, shall be reprimanded or expelled from the association.

On motion, the Association then entered into an election for officers for the ensuing year, which resulted in the choice of Dr. John Baskin, of Mercer, for President. Dr. John Mitcheltree of Mercer county, and

Dr. D. Leasure of Lawrence county, Vice Presidents. Dr. G. W. Baskin of Mercer, Recording Secretary. Dr. Wm. Wood of Lawrence Co., Corresponding Secretary. Drs. J. E. Stewart, R. M. Bebee, of Trumbull county, Ohio, John T. Ray, of Mercer Co., Pa., Walter W. Prentiss, of Mahoning Co., Ohio, Wm. R. Cowden, Butler Co., Pa., and W. G. Henderson, of Mercer Co., Pa., Censors.

Upon taking his seat, the President delivered an eloquent inaugural address, in which he dwelt upon the duties of, and advantages accruing to members of the Association.

Dr. Leasure of Lawrence county, previously appointed for that purpose, delivered an address to the Association, for which the thanks of the Association were tendered, and the address ordered to be published.

Dr. Hart of Clarksville, Pa., from the committee on epidemic diseases of the district, submitted an interesting report.

Dr. Henderson, of Middlesex, Pa., from the committee on obstetrics, submitted a lengthy and interesting report, the reading of which induced

Dr. G. W. Baskin to detail two cases of preternatural labor.

Dr. J. S. Stewart, of Brookfield, gave the history of a case in which a blighted foetus was expelled at full term, together with a full grown child. Dr. Hart a similar case.

Dr. Irwin, of Sharon, communicated his favorable experience on the use of ext. belladonnæ in rigid os uteri, and it was confirmed by

Dr. Hart, who also advocated the use of chloroform under similar circumstances.

Dr. G. W. Baskin submitted a case of puerperal mania, in which he had successfully used the inhalation of ether to subdue the violence and overcome the restlessness of the patient.

Dr. W. R. Cowden, of Portersville, Butler Co., Pa., offered some interesting remarks on the use of nit. argent. in the cure of paronychia.

Dr. Leasure suggested the use of congelation in the treatment of hæmorrhoids, stating that in his hands it had been perfectly successful.

The following committees were then appointed by the chair, to report at the next meeting of the Association, viz :

On the use of cod liveroil, Drs. Cowden and Leasure. On anæsthetics, Drs. Hart and Rankin. On hæmorrhoids, Drs. Harnet and Dawson. On dysentery, Drs. Ray and Henderson. On eruptive diseases, Drs. Stewart and Bebee. On typhoid fever, Drs. Prentiss and Fowler.

By a provision in the constitution adopted, it also becomes the duty of every member of the Association to send in, or read to the Association, at every meeting, the details of two cases occurring in his own practice.

Drs. G. W. Baskin and Leasure, were appointed a committee of publication.

A committee consisting of one from each county represented in the Association, was appointed to give notice through the papers of the district, (each member in the papers of his own particular county,) of the time and place of the next meeting of the Association. The committee are,

Dr. John McCook, of Columbiana Co., Ohio.

" L. D. Kellogg, Ashtabula " "

" W. M. Prentiss, Mahoning " "

Dr. J. J. Wallace	Lawrence Co., Pennsylvania,
" W. R. Cowden,	Butler " "
" A. Sergeant,	Crawford, " "
" J. W. Riddle,	Venango " "

Paid to the treasurer, by the members of the Association, thirteen dollars.

On motion, the Association then adjourned to meet at Youngstown, Mahoning County, Ohio, on the third Tuesday (the 21st day) of October next, at nine o'clock, A. M., punctually.

G. W. BASKIN, *Rec. Sec'y.*

**AMERICAN MEDICAL ASSOCIATION. PRIZE ESSAYS.**—At the meeting of the American Medical Association held in Charleston, S. C., in May last, the undersigned were appointed a Committee to receive and examine such voluntary communications, on subjects connected with medical science, as individuals might see fit to make, and to award a prize to any number of them, not exceeding five, if they should be regarded as entitled to such a distinction.

To carry into effect the intentions of the Association, notice is hereby given, that all such communications must be sent, post paid, on or before the first day of April, 1852, to Geo. Hayward, M. D., Boston, Mass. Each communication must be accompanied by a sealed packet, containing the name of the author—which will not be opened unless the accompanying communication be deemed worthy of a prize. The authors of the unsuccessful papers may receive them on application to the Committee, at any time after the first of June, 1852; and the successful ones, it is understood, will be printed in the Transactions of the Association.

GEO. HAYWARD, *Boston.*

J. B. S. JACKSON, "

D. H. STORER, "

JACOB BIGELOW, "

USHER PARSONS, *Providence, R. I.*

*Boston, Aug. 20, 1851.*

**NEW HAMPSHIRE MEDICAL SOCIETY.**—The following resolution was presented by Dr. J. S. Fernald, of Barrington, and unanimously adopted, viz:—

"*Resolved*, That it is inconsistent with the spirit of our code of ethics for Fellows of this Society to give certificates of approbation of medical compounds, whether the formulæ be known or not; and that such practice is detrimental to the interests of the faculty, and tends to foster empiricism."

Professors Crosby, Peaslee, and other members present, confessed their faults in this regard, and promised to sin no more.—*N. Y. Med. Gaz.*

NASHVILLE JOURNAL OF MEDICINE AND SURGERY.—We learn with pleasure that this well-stored and spirited Journal will be issued in *monthly* form, from the commencement of the second volume. Dr. BOWLING, the editor, informs us that his effort to establish a medical periodical in the State of Tennessee has been most handsomely responded to by the profession of Tennessee, and the West generally. We wish him continued success.

DR. VALENTINE MOTT, Jr., of N. Y., has been appointed to the Professorship of Surgery in the Washington University of Baltimore.

DR. PAUL F. EVE, of Augusta, Ga., has accepted the chair of Surgical Anatomy and Clinical Surgery in the Medical Department of the University of Nashville, Tennessee.

THE CHAIR OF MEDICINE IN THE FACULTY OF PARIS.—The "Concours" for this chair has lately been concluded by the appointment of Dr. Requin. The candidates were repeatedly balloted for, as they had all given proofs of great capabilities.

HONORARY DISTINCTIONS OFFERED TO M. RICORD.—This indefatigable laborer in his special branch of surgery, has lately received from the Sultan, the order of the Nizam, the cross of which, set with diamonds, is extremely valuable. The king of Spain has likewise wished to acknowledge the merit of M. Ricord, and has sent him the Order of Charles III.

THE STAFF OF THE HOTEL DIEU.—M. Husson, senior Physician to the Hôtel Dieu, has retired from practice, and his retreat has given rise to numerous changes in the hospital staff. Thus, M. Piedagnal goes to the Hôtel Dieu; M. Nonot to La Pitié; M. Barth to St. Antoine. There is likewise vacant the office of Physician to the Enfants Malades, and to the Female Venereal Hospital, besides the Presidency of the Faculty of Medicine, vacant by the resignation of M. Bérard, who has been quarrelling with his confrères.

DR. WORTHINGTON HOOKER has just received the *Fiske Fund Prize* for an Essay on Homœopathy, which is about being published. This is the second prize which Dr. Hooker has received from the same source, the first one having been awarded for a dissertation entitled the "History of Medical Delusions."

## DEATHS OF DISTINGUISHED PHYSICIANS.

HENRY JENNER, M. D., nephew of the celebrated Jenner, died lately at Stone, near Berkeley, Gloucestershire, England, aged 83 years.

DR. MOIR, of Musselburgh, Scotland, died lately at Dumfries in that kingdom, in his fifty-fourth year. He was a skilful and distinguished practitioner, and a contributor of numerous popular poetical pieces to Blackwood's Magazine, under the signature of *Delta*.

M. DAGUERRE, inventor of the Daguerreotype, died near Paris, on the 10th of July.

DR. GILBERT SMITH, of New York, for more than fifty years a highly esteemed and popular practitioner of that city, died in West Chester Co., N. Y., on the 16th of July, aged 80 years.

The venerable SIR GEO. SMITH GIBBES, M. D., died on the 23d of June, at Sidmouth, Eng., aged 80. He was a Fellow of the Royal College of Physicians, and for many years physician extraordinary to Queen Charlotte, during whose reign he was knighted.

M. AMUSSAT ON THE EMPLOYMENT OF WATER IN SURGERY.—This valuable essay, translated by Professor Hamilton, of the University of Buffalo, and originally published in the Buffalo Medical Journal, has, we are glad to see, been issued as a distinct publication.

TRIAL FOR ALLEGED MALPRACTICE.—Prof. T. Spencer, of Milwaukee, was lately tried on a charge of malpractice on a little girl between four and five years of age; the declaration being substantially, that "large doses of calomel," "negligence," "want of skill," &c., had produced necrosis or mortification of the lower jaw. The verdict of the jury in the case was—"No cause of action."

"After the trial, the immediate neighbors and professional friends of Prof. Spencer, gave expression of their feelings of gratification, at a large meeting assembled for the purpose, when the following Preamble and Resolutions were unanimously adopted:

"Inasmuch as we approve of the justness of that law which holds members of our profession accountable for the correctness of their practice, as due not only to the patient who may have been aggrieved, and to the protection of the community at large, but always as the strongest test which society can apply to distinguish between science and quackery, therefore,

"Resolved, That as our Legislators have denied us the right to apply a test between science and empiricism, in season to prevent the injuries of the latter in the community, we hail with pleasure the application, in all

proper cases, of the remedy afforded in *common law*, for redress of such injuries, *after they are committed*; but at the same time, cannot too highly censure the conduct of any, who, by false and improper representations, encourage an appeal to this law for redress of fancied injuries.

"*Resolved*, That, with unmingled pleasure, we tender to Professor Spencer, our congratulations on the result of the trial through which he has just passed.

"*Resolved*, That while we congratulate Professor Spencer on his unanimous acquittal from blame, we also deeply sympathize with the family of Mr. Russel, in the grievous and distressing affliction to which they have been subjected, and assure them of our sincere sympathy and condolence."

ENORMOUS CORPULENCE.—Dr. Aran lately published in *L'Union Médicale*, the case of a woman of twenty-five, under the care of M. Rostan, at the Hôtel Dieu, in Paris, who died one month after admission, evidently from a surprising accumulation of fat. Bronchitis and dyspnoea were prominent symptoms. She could not have weighed less than 400 pounds, every portion of her body being disfigured by deposition of adipose matter. On a post-mortem examination, fat was found both in the chest and abdomen; even in the mediastina and between the pleura and the walls of the chest. The viscera of the abdomen were literally lost in the fat, but no organ had undergone fatty degeneration. The patient could not account for the polysarcia with which she was affected, and had lived very moderately.—*London Lancet*.

THE SWEATING SICKNESS.—The sweating sickness continues to prevail with great intensity in the South of France. In a few hours fatal congestion of the brain often ensues. Quinine in large doses has been found to be the best remedy.

THE HUNTERIAN MUSEUM.—In the parliamentary grants of money to medical institutions and charities, voted by the House of Commons, on the 19th July, will be found one of £15,000 towards the erection of an additional museum, and for enlarging the theatre of the Royal College of Surgeons, for the delivery of the Hunterian Lectures. The vote for this munificent sum was agreed to by the House without a division, the Chancellor of the Exchequer stating, that many years ago Mr. John Hunter, the most celebrated surgeon, perhaps, which this country ever produced, accumulated a collection of anatomical specimens of great value, which eventually became so extensive and valuable, that they were bought by the country, and ultimately committed to the care of the College of Surgeons. Since that museum had been committed to their care,

the College of Surgeons has most faithfully discharged the trust reposed in them. They had themselves greatly added to the museum, at a cost of no less than £189,000, and thrown it open to the public. Having spent that very large sum of money, which they were not bound to do, they found themselves without adequate funds to enlarge the museum and theatre, as was their wish. Under these circumstances, they had applied to Government for assistance. The following sums were awarded to medical charities in Ireland :—To the Fever Hospital, Cork-street, Dublin, £3,040 ; to the Westmoreland Lock Hospital, Dublin, £1750; to Dr. Stevens's Hospital, £1200; the Dublin Lying-in-Hospital, £600; and to the Hospital for Incurables, Dublin, £400,—making a total of £6990 to the medical charities of Dublin. At the same time the sum of £9969 was voted to defray the charges of the General Board of Health, not without great opposition.—*London Lancet*.

TESTIMONIAL TO DR. LAYCOCK OF YORK.—A handsome silver tea service has been presented to Dr. Thomas Laycock of York, England, by the Associated Licentiates Extra Urbem of the College of Physicians, with the following inscription :

“Presented to Thomas Laycock, M. D., Physician to the York Dispensary, Lecturer on the Practice of Medicine in the York Medical School, &c. &c., by his friends, the Associated Licentiates Extra Urbem of the Royal College of Physicians of London, in testimony of their very cordial esteem and regard, and in gratitude for the ability, energy and zeal with which he has maintained their rights and interests.—Anno Domini, 1851.”—*Dub. Med. Press*.

POISONING BY NICOTINE.—An extraordinary trial, which took place in Belgium, and in which the Count and Countess Bocarmé were accused of poisoning the Countess' brother, by the forcible administration of nicotine, has been recently brought to a conclusion. The Count, who was found guilty, was condemned to death, and has since been executed; the lady may consider herself fortunate in having escaped. The most interesting circumstances connected with this horrible affair are, that the Count seems to have prepared the poison with his own hands; and that although he probably selected nicotine as a substance which could not be chemically detected in the body of his victim, M. Stas, a Belgian chemist, obtained distinct evidence of its presence on applying suitable tests. M. Orfila has since communicated the results of some experiments on the detection of nicotine, to the French Academie de Médecine, and although the process which he recommends differs slightly from that which was adopted by M. Stas, he arrives at the same conclusion, viz., that the

poison can be detected unequivocally if present even in the quantity of a few drops in the stomach and bowels, and that it may even be found in the liver and other organs after its absorption into the system.—*London Monthly Journal*.

**BELL'S GRAVE.**—Perhaps it may not be uninteresting to the admirers of the great Sir Charles to hear of his resting place. On the western bank of the Severn, and about four miles north of Worcester, we come to a rising ground, on which stands a large yellow building, surrounded with trees, and called Kallow Park. In this house Sir Charles died quite suddenly, and on the evening of the day of his arrival; it is supposed that a rupture of some of the heart's cavities caused this great loss to the medical world, but Lady Bell would not allow an autopsy, and thus we are undecided as to the immediate cause of his death.

As we approach the park and ascend the pathway, we see the village church, and in the south-west corner of the yard a few plain tombs are visible, surrounded with iron rails; on one of them the following lines are inscribed:

Sir CHARLES BELL, K. T.

Born at Edinburgh, MDCCLXXV.

Died at Kallow Park, April xxix., MDCCCXLII.

"Blessed are the pure in heart for they shall see God."

This stone is placed by MARTHA, his widow.

Within the church, and almost opposite the entrance, and on the north side of the communion table, is a white marble stone, plain and unadorned, and written on its surface in black letters these words:

"Sacred to the memory of Sir Charles Bell, who, after unfolding with unrivalled sagacity, patience and success, the most wonderful structures of our mortal bodies, esteemed lightly his greatest discoveries except only as they tended to impress himself and others with a deeper sense of the infinite wisdom and ineffable goodness of the Almighty Creator. He died while on a visit of Friendship at Kallow Park."

*Dublin Med. Press.*

## RECORD OF MEDICAL SCIENCE.

## ANATOMY AND PHYSIOLOGY.

*Lectures on Digestion, Respiration, and Secretion, given at the Royal Institution, to the Members and to the Pupils of St. George's Hospital.*

By H. BENCE JONES, M. D., F. R. S., Physician to St. George's Hospital.

## ON THE BILE.

My subject to-day, gentlemen, is the bile, which has, perhaps, given rise to more speculation among physiologists, and more work among chemists, than almost any other which the animal body could furnish. The chemical composition of the bile has formed a subject of inquiry to the very first chemists that have existed, from Berzelius to the present time; but, until very lately, it has not been at all understood. It has also formed the subject of the greatest speculation on the part of the physiologist; and there is scarcely an hypothesis that can be started respecting it which you will not find defended by writers on the physiological properties of the bile. It has been supposed to have the most opposite qualities; and, in fact, there is no limit to the actions which it has been thought capable of effecting. The chemical composition has been most difficult to comprehend, because the bile is a body which can be very easily changed by the different re-agents to which it has been subjected. Even if left to itself, the bile rapidly undergoes change, and new substances are produced from it. Still more rapidly does it change when subjected to chemical re-agents; and hence the opposite statements you meet with in books regarding its composition. It is my object to-day to try and make clear to you, first, the chemical composition of the bile, and, secondly, its physiological properties.

This analysis of the bile shows the kind of substances in it.

*Composition of the Bile.*

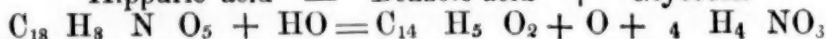
Water, . . . . .	90.44
Pieromel (gallenstoff) including fat, . . . . .	8.00
Mucus of the gall-bladder, . . . . .	0.30
Extractive common salt and lactate of soda, . . . . .	0.74
Soda, . . . . .	0.41
Phosphate of soda and lime, and traces of a } substance insoluble in alcohol, . . . . . }	0.11
	<hr/> 100.00

You will see from it, that it contains water, salt, and fatty matter; it contains also gallensstoff, a peculiar stuff, of which I shall have to speak in this lecture. The bile may be considered as a compound resembling the soaps, which are combinations of fatty acids and alkalies. The fatty acids have not the same composition as the peculiar acid of the bile, which is combined with soda; but, nevertheless, the bile more closely resem-

bles a soap than any other substance with which I compare it. The most difficult and most complex substance contained in the bile is that peculiar body, gallenstoff, or gall-stuff. It is this which so rapidly undergoes changes, and so readily gives rise to new products,—products which have received so many names, and created so much confusion regarding the constitution of the bile. You may remember, that in a previous lecture, I spoke of a body called “glycocol,” or sugar of gelatine. If gelatine was treated with alkali, sugar of gelatine was produced; and you remember, also, that I pointed out, that if benzoic acid was taken, it passed off as hippuric acid, the latter being nothing more than a compound of the elements of benzoic acid and glycocol.

*Relation of Hippuric to Benzoic Acid.*

Hippuric acid = Benzoic acid + Glycocol.



It is found, moreover, that glycocol can be abstracted from the bile if rightly treated. This is a most interesting and important fact; and it bears, as you will see, directly upon the composition of the gall-stuff, of which I shall have much to say. The composition of this glycocol is given in this diagram.

*Composition of Substances in the Bile Stuff.*

Glycocol,	C <sub>4</sub>	H <sub>4</sub>	N	O <sub>3</sub>		HO
Taurine,	C <sub>4</sub>	H <sub>7</sub>	N	O <sub>6</sub>	S <sub>2</sub>	
Cholalic acid,	C <sub>48</sub>	H <sub>39</sub>		O <sub>9</sub>		HO
Glycochloric acid,	C <sub>52</sub>	H <sub>42</sub>	N	O <sub>11</sub>		HO
Taurochloric acid,	C <sub>50</sub>	H <sub>45</sub>	N	O <sub>14</sub>	S <sub>2</sub>	

Out of the bile, also, can be formed a substance of which you see here, by the kindness of Professor Liebig, a beautiful specimen; it is known by the name of “taurine.” It can be obtained without difficulty from the bile; it does not always exist as such in the bile, but can always be obtained from it by re-agents. The most remarkable fact regarding this taurine, is, that it contains much sulphur. You will find that there is another crystalline animal substance, viz., cystine, occasionally found in the urine, which contains the same elements as taurine, only in different proportions. Another substance obtained from bile is called “cholalic acid,” of which I have here a specimen in tetrahedral crystals. It is not this acid which combines with soda to form the peculiar constituent of the bile, although it can be obtained from human or ox bile. Cholalic acid has the property of combining with glycocol and forming a compound acid, which may be called “glycocholalic acid.” It also forms a compound with taurine, which is called “taurocholalic acid.” These two compound acids may be obtained from the bile. The bile is not simply a mixture of taurocholalic acid and glycholalic acid, combined with soda; but these two acids can again combine together to form a still more compound body, which is the peculiar organic constituent of the bile. If this constituent, which has furnished so much work to chemists, be treated in one way, one set of products is formed; and if treated in another

way, another set is produced. Hence so many different matters have been said to exist in the bile.

I have here a beautiful specimen of glycocholic acid combined with potash and soda, forming the crystallized bile of Platner. And in this specimen you may see the glycocholic acid free, and I have here separate specimens of glycocholalate of soda and glycocholalate of potash.

If bile is decomposed by a very strong acid, and is then left to stand for some time, or even, it is said, if it is left in the human body, and decomposition takes place, a far more insoluble substance, called choloidinic acid, is produced. This acid can also be formed from cholic acid by boiling it with strong acid; by heat alone the choloidinic acid is converted into an insoluble neutral substance called dyslysin. This acid is probably one of the substances produced in the human body by the bile, in its passage through the bowels. If this acid is oxidised, among other products, it gives precisely the same volatile products as oleic acid. Here is another resemblance between the substances in the bile, and the fatty substances, of which I have spoken in a previous lecture. Thus much for the composition of this peculiar substance existing in the bile.

I trust I have made it clear to you that there exists in the bile taurine, glyocol, and cholic acid; that they do not exist as such in the bile, but that they form compound acids, like sulphovinic acid, sulpho-saccharic acid, nitro-benzoic and others; they form highly compound or conjugated acids, which can be broken up by the action of different agents upon the bile. But the peculiar constituent of the bile, as a whole, consists of tauro-cholic acid and glycocholic acid, combined together, forming a double conjugate acid, which is united with soda.

A peculiar test for the bile has been given us by Pettenkoffer, which, for its beauty, well deserves to be shown to you. If I take a little ox-bile, freed from all mucus, (which can be done by means of alcohol,) mix it with water, and then add one drop of sugar and a little sulphuric acid, free from sulphurous, I shall have what is known as Pettenkoffer's test for the bile. The strength of the sugar should be one part of sugar to four parts of water. A yellow precipitate is first formed; it then deepens in color, as you see, until it becomes red, and at last a beautiful crimson. The heat produced by the mixture of the acid with the water is generally sufficient for the test. Instead of sugar, acetic acid, and probably other substances may be used.

There is another peculiar substance in the bile which deserves your attention; it is known by the name of cholesterine. It differs somewhat in its re-actions from ordinary fatty matter. I have here a beautiful specimen of this cholesterine in crystals. The substance has this re-action: it is soluble in alcohol by the aid of heat, and when cooled it crystallizes out in beautiful plates. It is a substance containing carbon, hydrogen, and oxygen, and may be represented by the formula  $C_{81} H_{69} O_8$ . It is easy to be determined, from its crystalline form and chemical re-actions; fusing most easily, and burning with a smoky flame. Cholesterine forms the usual ingredient of most biliary calculi. It is rarely that the highly complex acids of which I have spoken enter into the composition of

biliary calculi; but the cholesterine, from its insolubility, is much more apt to do so; in fact, but for this substance, gall-stones would be exceedingly rare. Taurocholalic acid dissolves the cholesterine very easily, but glycocholalic acid scarcely at all. Taurocholalic acid is very probably the solvent of the cholesterine in the bile. If in the gall-bladder the taurocholalic acid should undergo any change,—if there should be any loss of its properties, or any conversion of it into another substance, (and it easily undergoes change,) then the proper solvent for the cholesterine is gone, and the cholesterine falls as a precipitate. Very frequently in gall-stones it is found that a small particle of coloring matter forms the centre on which the cholesterine crystallizes. I have here many thousands of biliary calculi removed from one patient; and mixed with the gravel are little particles of dark green biliary matter. Moreover, little particles of coloring matter may be seen to form the nucleus of each little stone, on which the cholesterine has crystallized; sometimes cholesterine calculi attain the enormous size of the magnificent specimen belonging to this institution. Cholesterine is not peculiar to the bile; in this long tube you see crystals of cholesterine removed from a tumor. It exists in the brain, and is formed in atheroma and in chronic abscesses, in tubercles and in pus.

Besides these substances, the bile contains salts; that is, if burned, it gives ashes; and it is found that healthy bile is always of an alkaline reaction, from the quantity of soda present in it. Lastly, the quantity of water contained in the bile is very considerable, but by no means so much as we found in the gastric juice and the saliva; its specific gravity amounting to 1026 or 1030.

Regarding the coloring matter much has been said, but little work has been given to it except by Berzelius, who states that the coloring matter of the bile and the coloring matter of grass are identical; and that this is so, whether the bile comes from vegetable or animal feeders. This coloring matter, perhaps, is a most important accessory, of which we do not know the physiological importance. On the other hand, it may be only a substance derived from the coloring matter of the blood, after it has served the purposes for which it was formed. Time only admits of my stating that, as far as the examination of Berzelius goes, the coloring matter of the bile and that of the grass are both chlorophyl, and are therefore perfectly identical.

I come now to the quantity of the bile formed. This probably varies very much in different animals and in different human beings. Of course experiments cannot be made as to the quantity of bile in human beings; animals alone become subjects for research in this respect. It has been found, that a cat weighing 2½ lbs. during the most perfect digestion, secreted 11·8 grains of bile in an hour. It appears from experiments in Germany, that the quantity of bile secreted reaches its height about ten or twelve hours after food; that it then diminishes to what it was an hour or two before food. This is a most important fact regarding the physiology of the bile—that it requires as much as ten hours after food has been taken for it to reach its highest quantity:—

*Quantity of Bile at different hours after Food.*

		Quantity of Bile.
Cat after eating flesh,	2nd hour	. 7.5 grs.
"	4th "	. 9.7
"	6th "	. 11.6
"	8th "	. 12.7
"	10th "	. 13.0

From the 10th to the 24th hour it diminished at the rate of .4 of a grain per hour.

By continued starvation the quantity of bile decreases; and in perfect starvation no bile passes out of the gall-bladder at all, though the bladder is always distended with bile. In cases of starvation in human beings, which unfortunately sometimes occur, the gall-bladder is found full of bile, though none can be found in the intestines.

The most remarkable discovery which has lately been made with regard to the bile has been given to us by M. Bernard, a French physiologist, of whom I spoke in a previous lecture, on the pancreatic fluid; the discovery is perfectly original, and deserves the very greatest praise; and it will probably be found one of the most important with which we have lately been made acquainted.

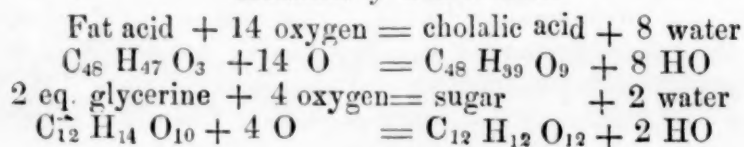
Not only does the bile of those who feed on starch and vegetables contain sugar, but sugar is found also in animals that feed on meat only. During the period of digestion the liver always contains much sugar. M. Bernard has found three times, even in man, that this is the case. I have here an extract from the liver of one of the persons on whom he made his experiments. The sugar cannot be long in the liver without undergoing change,—being converted perhaps, into lactic, or some other acid. Ten or twelve hours after the death of a man or an animal, no sugar would be found in the liver. One liver experimented upon by M. Bernard was obtained from a woman who was executed in Paris for murder. He found that an extract obtained from this liver manifestly contained sugar; and I hope to be able to show you this on a portion of this extract, as he showed it to me.

If I boil this extract in water, I shall dissolve the sugar, if there be any present, and then I shall have a solution to which I can apply my test—that of sulphate of copper and liquor potassæ, by which a reduction will instantaneously take place, such as you have frequently seen. Here is the rapid reduction. M. Bernard finds that in all kinds of animals—mammifers, birds, reptiles, fish, and molluscs—the liver, during digestion, contains sugar. By continuous abstinence, in warm-blooded animals, very much of the sugar disappears. During the period of digestion, the blood which passes out of the liver by the hepatic vein always contains a very considerable quantity of sugar, whatever the nutriment may have been. This is different, perhaps, from what we might have expected at first sight. We might have supposed that the sugar would be absorbed by the veins, and as the blood passed into the liver, we should have much more sugar than as it passed out. M. Bernard found that dogs kept on flesh alone for three, four, five, six, or eight months, gave no sugar in the blood passing into the liver by the vena porta, but in the blood pass-

ing out of the liver, sugar was distinctly present. Lehmann, a German chemist of great authority, has also found, in five different horses, from ten to sixteen times as much sugar in the blood that passed out of the liver, as in that passing into the liver. When the animal was fasting, the blood of the vena porta gave no sugar. The hepatic vein gave it easily and distinctly. Not only did he detect sugar by the reduction of the copper,—which reduction might be said to arise from some other cause,—but he found that it could be fermented, and that carbonic acid and alcohol could be thus obtained. Sugar has also been found in the liver of the foetus.

M. Bernard says that the function of the liver is twofold; one, the formation of bile, which is thrown out; and the other, the formation of sugar, which is kept in. He has gone still further, and has endeavored to establish the influence of the nerves in the production of sugar. He thinks that the section of the pneumo-gastric nerves near the heart causes the sugar to disappear from the liver altogether; and that by exalting the action of this nerve, and especially by irritating it at its origin in the brain, the quantity of sugar thrown out can be greatly increased. I shall have occasion to return to this fact in my lecture on diabetes. However this may be, there can be no doubt that by the change which the blood undergoes in the liver, sugar is actually produced. The facts are these. Much fatty matter is found going into the liver by the portal vein with but little sugar; and from the hepatic vein there comes out much sugar, with but little fat. The explanation of this has not yet been fully ascertained. A conjecture has been given by one who always abounds in valuable conjectures—M. Schmidt, a German physiologist. I may show you this possible conversion of fat into sugar, thus:

*Relation of Fat to Bile.*



Suppose that going into the liver we have fat, consisting of fatty acid and glycerine, and that coming out of the liver, we have bile and sugar; then supposing the process of oxidation to take place—that is, that the fatty matter obtains oxygen—we have fatty acid and 14 eq. of oxygen, which give the elements of cholalic acid and water; whilst from glycerine with oxygen we have the elements of sugar and water. Thus, if we suppose that in the bile a process of oxidation is taking place, we have an explanation of the fat going in and the sugar coming out. I give this simply as a conjecture, I do not say that it is so; for no such change has been effected out of the human body by acting on fat. It is, at any rate, an explanation which enables us to remember the fact, that fatty acid and glycerine go into the liver, and that coming out of it, we have bile acid, and sugar. The bile acid is thrown out, and is used for purposes of which I shall have to speak; and the sugar passes in, continues in the circulation and is used for further purposes in the animal economy.

What, then, is the physiological action of the bile? The most opposite and the most important actions have been attributed to it. It has been said to promote digestion, and to stop digestion. Some say that it neutralises free acid, thus lessening irritation; others, that it increases the peristaltic action of the bowels, thus increasing irritation. It has been said to be partly absorbed into the system to support respiration, by furnishing a highly carbonaceous body. Some have said that it promotes the absorption of fatty substances; and by others, it has been said to have no action upon fats at all. To solve these questions was the difficulty. Experiments were tried by tying the common duct through which the bile passed; but this is not the way to arrive at a satisfactory result. If the bile is not suffered to pass, a stoppage is put to the functions of the liver; the whole order of the system is thrown out, and general disorder is produced. In 1844 a new mode of experimenting was begun by Schwann, who collected the bile without allowing it to pass into the intestines, by means of an opening similar to that which I mentioned in the case of the pancreatic duct. The action of the liver thus went on as usual, and all the functions of the body were performed without impediment. Twelve dogs lived from sixty-four to eighty days without any bile passing into the intestines; one dog, thus experimented upon, lived four months; and another, belonging, I believe, to M. Bernard, lived a year in this state. It was found that dogs thus treated ate much, and digested badly, partly in consequence of the unnatural fistulous opening. They did not lose much weight at first; but after a little time they lost their appetite, became thin, and ultimately died. The bowels acted as regularly and perfectly as if the bile had passed in the usual manner. Professor Nasse had a dog that lived from the 12th of August to the 27th of January. The quantity of bile varied with different kinds of food between 31 grains and 370 grains daily, with from 16.44 to 19.19 per cent. of solid constituents. Less was secreted when the dog was ill. The dog ate much; digested badly; did not lose weight at first; afterwards lost its appetite, and then became thin. M. Blondlot had a dog that flourished for three months. The bowels acted twice daily.\*

Even in human subjects, it has been found that when a fistulous opening has been made, owing to perfect obstruction of the common duct, by inflammatory action, the bowels have continued to act when the bile did not pass,—showing that the bile is by no means indispensable for their action.

Many experiments were tried with dogs, as to the quantity of bile secreted. The influence of medicine was also tried; and it is interesting to us to know that the action of mercury was decidedly to increase the quantity of bile secreted, as has long been held by medical men. If animals can live for a year, enjoy tolerable health, and digest their food,

\*At the meeting of the French Academy, on the 23rd of June this year M. Blondlot gave the history and *post-mortem* of a dog that lived for five years without bile passing into the intestines.

without any bile passing into the intestines, the importance of bile and its necessity for the purposes of digestion have been exaggerated.

The action of bile out of the body on the different constituents of food, tends to precisely the same results as we have seen obtained by experiments in the body. Bile, when mixed with neutral fat or with oil, is found to have no chemical action whatever. It makes a sort of emulsion only, not quite so good as that produced by the pancreatic fluid. I added to solutions both of pancreatic juice and bile, equal quantities of water and oil, and then left them, after agitation for some time, to see which produced the most enduring emulsion. You see them here; both have caused the fatty matter to be minutely divided: but I think the pancreatic fluid has divided it and kept it divided the best. When fresh out of the body bile has no action on starch; it does not change it into sugar, as we saw the saliva did. When, however, it is allowed to decompose, it has a slight action upon starch; but not more than all animal substances have. It has no action on cane-sugar until after it has stood for a considerable length of time, and then the cane-sugar is converted into acid. With grape-sugar, if left for any length of time, it forms lactic acid; but so do all other animal substances when in contact with sugar. It has no action, even when acidulated on casein, or on the albuminous substances which constitute our food.

It has been said that the liver purifies the blood by removing a large quantity of carbonaceous substance from it. To determine this by absolute experiment was a matter of great difficulty; but Schmidt has endeavored to solve this question by experiment on forty cats, thirteen geese, many sheep and rabbits, in which he made fistulous openings into the gall-ducts for the purpose of collecting all the bile, and of determining the proportion between the quantity of carbonic acid thrown out by the lungs and the quantity of carbon in the bile. He passed a tube into the gall-duct, and could measure how much gall came out per hour; and he could determine the composition of the bile by burning it and collecting the carbonic acid. He made, at the same time, comparative experiments on the respiration, some of which I shall have to detail to you in a future lecture; and he came to the conclusion that not more than from one-tenth to one-fortieth of the carbon which passes out of the body passes by the liver, and that therefore the liver has no considerable action in freeing the blood from carbonic acid or carbon. He found that eight-ninths or nine-tenths of the carbonaceous matter remains in the circulation, and does not pass out by the bile at all, but is thrown out through the lungs; a small portion, however, must escape in the urine, probably not much less than passes out in the bile. But I am unable to give you the proportion of carbon in the urine and bile daily excreted, from want of experiments.

What, then, in conclusion, are the uses of the bile? I have shown you that it is an alkaline fluid, and a body resembling soap. If soap is brought into contact with an acid, you know what happens: the alkali of the soap and the acid combine, and the acid of the soap is set free and precipitated. So, also, is it in the bile. If I take human bile, and

mix it with acid, (as you see in the experiment, with sulphuric acid,) a greenish white precipitate is formed. Let me show you what would happen to human bile, if mixed with the acid secretion of the stomach. This I can do by adding dilute hydrochloric acid to a portion of bile, or better still, by mixing some of the clear fluid obtained from the contents of the stomach, which I showed you in my lecture on the gastric juice; by both a precipitate will be immediately produced. (Experiment.) The alkali which exists in the bile goes to the acid; it neutralizes so far, the acid reaction coming from the stomach; and it precipitates the insoluble acids, which give rise to choloidynic acid, and even to that still more insoluble substance, Dyslysin, in its passage through the intestinal canal. It appears to me, then, that one great action of the bile is to furnish an alkaline fluid, which, when mixed with the acid secretion that has served the purpose of dissolving the albumen, will neutralize it, and lessen its acidity, so as to prevent it from producing irritation and increased action of the intestinal canal. That the stomach can actually bear much stronger acid than the bowels, is known to most medical men. That the acid does not pass rapidly out of the stomach I am convinced by the following experiment. To an adult man I gave 162 grains of dry, pure tartaric acid dissolved in two ounces of water. No pain was felt for three hours; no food was taken during this time; and without doubt, all the tartaric acid would in these three hours have been absorbed, or would have passed out of the stomach. At the end of this time, a pain in the bowels began to be felt, and at the end of the fourth hour there was very considerable pain, coming on in paroxysms. At the lapse of about five hours, if the bowels had been allowed to act, they would have acted from the acid thus taken. A repetition of the experiment, with 84 grains, gave precisely the same results. When the acid entered the bowels, pain began to be felt, and, if bile in plenty had been poured out, the acid would have been neutralized, in part at least; the alkali would have combined with the acid; the insoluble bile acid would have been formed as a precipitate, and been thrown out of the body. If this be so, sluggishness of the liver, a deficiency of alkali poured into the duodenum, becomes a reasonable cause of excessive acidity of the intestines; the gastric acid required to dissolve the albuminous food, if sufficient bile is not formed, will pass into the intestines, and produce irritation and increased action. The physician has long held, that want of action of the liver gives rise to acidity, and that alterative medicines correct this state.

But the very great size which the liver attains in the foetus appears to indicate that it performs some additional action independent of food and of digestion. This additional action has been said, by German physiologists, to be the reparation and the formation of blood globules; but this is by no means proved. It seems to me much more probable that it is for the purpose of neutralizing the acid, and probably also, for the purpose of removing, when requisite, some of the carbonaceous substances; in certain states compensating for the action of the lungs, though, in ordinary states, removing much less carbon than has been said. The bile

gives water, moreover, to dilute the chyle; it tends to the subdivision, in some degree, of the fat and the oil of our food. It acts upon the free acid of the intestine; and some of it may be possibly absorbed, and pass into circulation again, as Professor Liebig originally conjectured. It is not nearly so important as the gastric juice, which dissolves the albuminous part of our food, or the pancreatic fluid, and the salivary fluid, which convert all the insoluble starch, as I have shown you, into soluble sugar. Lastly, the importance of the bile in forming sugar from fat, is one of those facts which cannot be overrated. By this discovery of M. Bernard's, very important knowledge relating to the physiology and pathology of man will be obtained during the next few years; at least there can be little doubt, that the disease known as diabetes, if not closely connected with this production of sugar in the liver, must at least be influenced by it to a very considerable extent.—*London Medical Times.*

*The influence of the hours of the day on mortality.*—The observations and calculations of Dr. Casper lead to the conclusion that the maximum of deaths occurs in the fore part of the day, and the minimum between evening and midnight. The explanation of this, Dr. Casper seeks in the analogy between sleep and death: sleep, being the period in which great organic changes occur, is *pro tanto*, favorable to the dissolution of the individual.

The diseases which are the causes of death exert a modifying influence on the hour at which death occurs. The origin and progress of diseases, their exacerbations, and remissions, are frequently observed to occur at certain times of the day. The influence of these on the hours of death is shown by the following table of 5591 deaths from various diseases.

ACUTE DISEASES.	From midnight to 6 A. M.	From 6 A. M. to noon.	From noon. to 6 P. M.	From 6 P. M. to midnight.
Fevers . . . . .	64	75	66	66
Inflammations . . . .	160	164	182	160
Exanthemata . . . . .	44	45	43	59
CHRONIC DISEASES.				
Phthisis . . . . .	186	240	215	186
Atrophy . . . . .	347	381	282	255
Hæmorrhages . . . . .	163	186	161	121
Chronic Catarrh . . . .	41	47	34	24
Dropsies . . . . .	90	119	93	64
Neuroses . . . . .	267	267	191	179
Other chronic Diseases .	76	102	89	85
<hr/>				
Totals { Acute . . . . .	268	284	291	285
{ Chronic . . . . .	1140	1344	1065	914

The next table exhibits the variations from the general rule, in the same class of diseases, on the side either of excess or deficiency, as indicated by the signs + or —.

	From midnight to 6 A. M.	From 6 A. M. to noon.	From noon to 6 P. M.	From 6 P. M. to midnight.
<b>ACUTE DISEASES</b>				
Fevers . . . . .	—16	—15	+ 1	+30
Inflammations . . . .	—12	—45	+31	+26
Exanthemata . . . .	—22	—55	—18	+95
<b>CHRONIC DISEASES</b>				
Consumption . . . .	—27	— 1	+17	+11
Atrophy . . . . .	+ 5	+18	—15	— 8
Hæmorrhages . . . .	+ 6	+ 4	+12	—22
Chronic Catarrh . . .	+29	+31	—10	—50
Dropsies . . . . .	— 6	+17	+11	—33
Neuroses . . . . .	+43	+ 6	—32	—17
Other Chronic Diseases .	—36	— 1	+10	+27

The following are briefly the conclusions of Dr. Casper on the influences investigated by him:—

1. *As to births.*—More births occur from nine o'clock in the evening to six o'clock in the morning than during other hours of the twenty-four. Labor-pains commence more frequently between midnight and three o'clock in the morning than at other times. Of those births which terminated during the day, the majority were male children. Labor is longer if the pains begin in the day-time than if it commence during the night. This influence is more striking with still-born than with living children.

2. *As to deaths.*—The maximum general mortality occurs during the earlier hours of the day, the minimum in the evening. Of special causes of death the relative mortality with reference to the time of day presents many variations. Inflammatory diseases present their maximum in the after-part of the day; fevers and exanthemata in the earlier hours of the night; hæmorrhages in the fore part of the day and in the afternoon; and the neuroses generally in the hours after midnight.—*London Med. Gaz. April 1851.*

## OBSTETRICS.

*Case of Transfusion of Blood.*—The following case of successful *Transfusion* is reported by Dr. Marmonier, in the *Gazette Médicale de Paris*, 5th July, 1851, and is copied into the *London Medical Times* 9th August, 1851, from which we extract it. It is particularly interesting from the simplicity and ease with which the operation was performed.

"Jan. 3, 1851.—At six o'clock in the morning I was called to a woman named Mallet, of Lancey, aged 30 years, of a lymphatic constitution, somewhat weakened by many pregnancies occurring in quick succession, by previous difficult labors, and by moral and physical trials. The labor pains on my arrival had nearly ceased. The patient was weak and exhausted from long-continued and useless efforts, which were un-

able to cause the expulsion of the child, on account of a very decided anteversion of the uterus. I performed the operation of turning and extracted the child by the feet; unusual hæmorrhage supervened, which forced me to extract the placenta rapidly, and to excite the contraction of the uterus, which was in a state of collapse. This plan succeeded, the discharge being arrested in a few moments.

"In three-quarters of an hour I withdrew, leaving her to the care of the midwife; but in half an hour after my departure, the discharge reappeared in great abundance; this was stopped by syncope. The hæmorrhage again returned; and, on this occasion, left the patient in a long-continued state of very great exhaustion and syncope.

"I was again called, and returned at the moment of the first discharge. The attendants believed her dead, and indeed she was in a state of hopeless exhaustion; she had extreme pallor, with cold extremities, pulse almost, and sometimes altogether, imperceptible, obscurity of vision, and repeated syncope. I had recourse to astringent and refrigerant applications—a concentrated infusion of ergot of rye—a cordial potion, dry frictions over the skin with a brush and with flannel, at the same time applying hot cloths to the limbs. I persevered in this manner for three quarters of an hour, without obtaining the least melioration, the state of the patient, on the contrary, gradually becoming worse, and I foresaw the inevitable approach of a fatal termination. At this moment the recollection of a case by M. Nelaton decided me to attempt the transfusion of blood, although alone, and without any of the usual instruments for the performance of this delicate operation.

"I found in the house a small child's syringe, which would hold about 70 grammes of blood, having ordered in readiness hot water, vessels, and linen; a neighbor of the patient, a girl named Faget, was kind enough to consent to allow the necessary quantity of blood to be taken from her arm. Everything being arranged, I made an incision three centim. in length over the basilic vein in the right arm of the patient, in the direction of its course. I then completely isolated the vein for the extent of two centim., and passed below it a ligature to enable me to raise the vein, and to tie it upon the point of the syringe. I then divided the coats of the vein for a demicentimetre in length: two or three drops of blood only escaped. I then compressed the vessel above and below. Having bled Faget, and the blood being received in a cup, placed in a vessel full of water sufficiently hot to preserve it at its ordinary temperature, I quickly took the syringe, previously warmed, and filled it completely with the blood, forcing forward the piston so as to be quite certain that it did not contain any air, the tube of the syringe being inserted into the opening in the vein, and, having tied the ligature lightly around its point, I slowly and with care injected the blood into the vein; after having forced the piston through one-third of its course, I felt a sudden resistance, which showed me that the blood no longer penetrated the vein either from coagulation having taken place, or from some other cause; I of course, immediately ceased to press forward the piston.

"In recommencing the operation I enveloped the syringe with linen thoroughly moistened with hot water, and this time nearly all the blood

which the syringe contained was injected into the vein. The whole quantity of blood introduced by the two attempts might be calculated to be about ninety grammes, without any subsequent pain or inconvenience.

"Immediately after the transfusion, respiration became more regular, the pulse stronger, the tendency to syncope suddenly ceased, and the obscurity of vision, which had been a permanent symptom, rapidly subsided.

"To keep up this improvement, after having dressed the little wound, I recommenced the use of frictions and hot cloths, besides again having recourse to rhatany and ergot of rye.

The circulation and animal heat returned by degrees, and two hours after the operation, the patient was so well that she slept for a short period, and to this sleep succeeded an unexpected melioration, which put an end to this alarming crisis.

"From this time her convalescence was rapid; the secretion of milk took place regularly. Ten days after, the patient was able to rise for an hour in the day; on the twentieth day she was completely well, and at the end of thirty days she was able to follow her usual occupations."

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#### PATHOLOGY AND PRACTICE OF MEDICINE.

*Treatment of Skin Diseases, Small-pox, Syphilis, and Ague in Morocco.*—We extract from an interesting paper of Dr. Dulac, a French surgeon employed in the embassy to Morocco, the following particulars. The most frequent diseases in Morocco are tænia, the itch, small-pox, syphilis and ague. The *favus vulgaris* is much more common than the *scutiformis*, and the *theubibs* (or doctors) employ the following remedy against it:—A water tortoise is thrown into a large fire, and is there left until it is completely carbonized; it is then taken out and pounded in a mortar. The powder mixed with oil, is every evening smeared on the patient's head, who washes off the ointment in the morning with sea-water. A great many cures are said to be thus obtained. Almost all the Arabs use for the itch an application of sulphur and butter, with which they rub the whole body; in the mountains, however, they prefer a purgative composed of pitch and very rancid butter. In obstinate cases they use an ointment composed of one drachm of arsenious acid to two ounces of butter. Three days' frictions all over the body are said to be sufficient for a cure. Small-pox destroys a frightful number of people, especially in the spring, and as much as one-fourth, or even one-third of the inhabitants of certain localities are carried off. The Moroccose obstinately refuse to be vaccinated, and say that the law of the Prophet is against the practice. The Jews are less averse to vaccination, and Dr. Dulac succeeded in vaccinating several children belonging to Jewish parents, but not one Musselman child was ever brought to him. The *theubibs* say that the small-pox lasts just nine days, and they divide these into three periods. They state that the pustules form during the first three days, that they fill for the three next, that they empty themselves and dry up for the three last, and that the patient is out of

danger on the tenth day. He is prevented from taking any fish, or herbs, and is given weak tea and chicken broth; the variations of temperature are avoided, and lemons or vinegar are carefully excluded from the patient's room. Castor-oil, or very rancid butter, is afterwards used as a purgative; the latter being sometimes mixed with a little tar.

Syphilitic affections are very common in Morocco; syphilis is called *merd el kebir* (the big disease.) Dr. Dulac saw principally secondary and tertiary affections, which chiefly occupied the anal region. The *theubibs* treat syphilis either with or without mercury. When the metal is not used, the *Haskba* (sarsaparilla) is given, of which the patient is made to eat one ounce per diem. He is desired to swallow the whole root, as the doctors do not believe that water can take up its medical properties. The patient avoids tea and coffee, and takes only bread and dried fruit. He continues this for forty days, is then smartly purged, and allowed to resume his usual mode of life. When this treatment does not succeed, and ulceration of the penis or a discharge from the urethra persists, mercury, extinguished in honey, is given. No other mercurial preparation is known. Five grains are given once a week, and a strong dose of castor-oil is administered soon afterwards.

Ague is very common, and though the *theubibs* know the properties of bark, they and the patients avoid its use, owing to its high price; they substitute for it ground coffee mixed with lemon-juice, and likewise various kinds of bitters. A very celebrated *marabout* in the neighbourhood of the city of Morocco, possesses an infallible specific for ague, but it requires more than common courage to take it. It consists of a slice of bread and butter on which is placed a layer of *pediculi capitis*. Dr. Dulac mentions that this remedy was proposed to the wife of a European consul at Tangiers, who could not get rid of her ague, but he does not say whether she took it. Dr. Dulac spoke, on the other hand, to several Arabs who had done so, and who spoke very highly of the efficacy of a specific so cheap and so easily procured. When a *theubib* has exhausted all his remedies without any beneficial results, he resorts to religious practices; he, for instance, writes a few verses of the Koran on a slip of paper, burns it, and makes the patient swallow the residue. Or he writes on a dinner plate what he had put on the paper, washes off the writing from the plate, and desires the sick man to drink the water used for the purpose. Or he, lastly, proceeds like the *mesmerisers* of this country, makes several passes over the head of the patient, and mutters some prayers. As a *dernier resort* the patient undertakes a pilgrimage to some holy and celebrated *marabout*, where he offers up in sacrifice, either a bull, a sheep, a goat, or only a hen, according to his means.—*London Lancet*.

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*A Statistical Report upon Disease of the Heart, derived from a consideration of all the cases admitted into St. George's Hospital during the last two years and a half. By Dr. BARCLAY.*—Rheumatism is first considered as one of its causes. Divided into two nearly equal classes—those really inflammatory or acute, and those less so, or sub-acute,—the former class is found to contain sixty-seven cases with cardiac

lesion, sixty-four without, and twenty-one doubtful. Endocardial murmur is found not to be certain evidence of disease, even in the most acute cases. Females are slightly more liable to acute rheumatism than males, but less liable to a recurrence of the disease. Females are more decidedly liable in a larger proportion to cardiac complication, and this is especially proved by the existence of friction-sound in the proportion of three females to two males. Cardiac complication exists eighteen or twenty per cent. more frequently in subsequent attacks than in primary ones. It is in the proportion of three to two of all the cases up to the age of twenty-five, and falls very rapidly after that age. The cases of sub-acute and chronic rheumatism furnish no examples of recent inflammation of the heart, but a considerable number of cases of old disease. So far as could be ascertained, these were almost all traceable to previous acute attacks, and were only about one-third of the cases which had previously suffered from acute rheumatism. The post-mortem appearances of recent inflammation are found associated with acute rheumatism, with disease of the kidney, with inflammation of the peritoneum and pleura, and with old disease of the heart, especially when hypertrophy existed, and with turbulent action during life. The cases of old disease of the heart are divided into sixty-one rheumatic, seventy non-rheumatic, and sixty-nine doubtful. They show a very considerable preponderance of males, especially among fatal cases. Up to the age of twenty, almost the whole, and even as far as thirty, more than half the cases, are associated with acute rheumatism. In the next twenty years, the non-rheumatic almost double the rheumatic cases, and after fifty, there are scarcely any derivable from rheumatism at all. The duration of rheumatic cases, dating from the first attack of acute rheumatism to death, is generally much longer for females than for males, varying in the latter from four to six years; in the former, from twelve to sixteen years. Four out of seven fatal cases of acute rheumatism, and twelve out of eighteen of older standing, are associated with pericarditis, which is always severe and extensive; but universal adhesion is neither the constant nor even the common result of rheumatic pericarditis, and it exists in cases where the previous existence of rheumatism is altogether denied. In valvular disease there are eighteen rheumatic cases, twenty-three non-rheumatic, and twelve doubtful. The recent cases are all examples of inflammation of the mitral. When old and recent disease exist together, and when old disease is seen in different stages, the mitral valve generally appears to have been first attacked, and the aortic secondarily; and hence the preponderance of double valvular lesion in rheumatic cases, seems to be due to renewed inflammation at distinct periods. Inflammatory thickening occurs also in several cases in which there had been no rheumatism. Disease of the kidney is associated with two cases of simple recent fibrinous deposit on the valves, and three of recent pericarditis, in which no other cause was known to have been in operation. It seems questionable how far this can be taken as a cause of great thickening of the valves, or of an adherent pericardium. Disease of each set of valves seems to produce, in nearly

equal proportions, hypertrophy and dilatation ; but aortic regurgitation especially the latter, atheroma of the aorta, more commonly hypertrophy ; adhesion of the pericardium, chiefly dilatation. Disease of the kidney is associated with an immense majority of the cases of hypertrophy, and similarly of the cases of disease of the kidney ; more than a third presented on post-mortem examination more or less of hypertrophy of the heart.

*Dublin Medical Press.*

## SURGERY.

*An examination of a distorted knee.* By JAMES ROBERTSON, M. D., F.R.C.S., M.B., Lond., Physician to the Infirmary, Hitchin.—I am induced to record the examination of the distorted knee of a person who lately died under my care (from ulceration of the intestines) because I find no such examination recorded ; and from the growing importance of the surgical treatment of deformities, every item of pathological knowledge is desirable, and because it presented some interesting appearances, the knowledge of which may be useful when writing “On Deformities.” Mr. Tamplin (and I know of no more experienced writer on the subject) says, (Lectures, pp. 120, 121, on Deformities of the Knee-joint,) “When the deformity is considerable, and has been so for some years, does the articulating surface itself alter in position ; or does the internal condyle itself alter or increase in size, or project more than it does in its natural size ? I do not believe that either of the changes takes place. I believe no alteration takes place ; certainly none by attrition. Yet it is a question on which, from our present experience, I am unable to speak positively.”

That these very alterations do *sometimes* take place, the following case proves.

R. P., aged 32, had his right knee distorted for many years ; he attributed it to carrying water when young ; it presented the usual appearance of genu valgum or knock-knee, of severe grade, the leg and thigh forming a considerable angle, which admitted of being slightly lessened by manipulation ; his left leg was straight. After death the angle did not admit of alteration. The tendon of the biceps and the external portion of the fascia lata were tense, but division of these did not allow of any material alteration of the position of the leg. The internal lateral ligament was lengthened. On opening the joint, the interior, except the articular surface and the crucial ligaments, presented a dark purple color, from a layer of enlarged tortuous vessels gorged with blood, ramifying under the synovial membrane, which was disposed in an infinite number of folds hanging into the joint, in form after the fashion of the valvulæ conniventes, in consistence like loaded plexus choroides, showing, when magnified, innumerable compound—or looped—loops of vessels enveloped by synovial membrane. The joint contained from half to three quarters of an ounce of thick, glutinous, yellow transparent fluid. The articulating surfaces and crucial ligaments were of their natural color ; a patch on the middle of the patella, as large as a six-

pence, was partially denuded of cartilage, and had a puckered appearance. There was a similar but smaller spot on the edge of the articulating surface of each of the condyles in front; these places suggested the idea of old puckered cicatrices. The end of the external condyle, and corresponding portion of the articulating surface of the external tuberosity of the tibia were denuded of cartilage, and the cancellated substance of the bone was bared to an extent equal in size to a fourpenny piece; around these rough surfaces, for about the sixth of an inch, the cartilage was detached and lay in a thin fringe on the bones. The cartilage became thicker as it receded from these fringes, and on the extremity of the inner condyle was scarcely less than a quarter of an inch thick.

On microscopic examination, these fringes consisted of little else than rows of cartilage cells. Whilst as the cartilage became thicker, the intercellular substance increased and the cells diminished in quantity, till at the thickest part these were thinly scattered. There was no appearance of vessels in the cartilage. The articulating surface of the inner condyle was considerably longer than natural, and more pointed; the outer, shorter and flatter. The semi-lunar cartilages were mere rings round the outside of the articular surface of the tibia; the crucial ligaments were perhaps rather long. The other parts of the joint presented nothing unusual. Thus, in this case, the internal condyle did project, was increased in size, the position of the articulating surfaces altered, and marked changes by attrition were evident, etc., etc., though not expected in such a case by the experienced writer above quoted. I need scarcely add, that joints similar to this would not promise a very successful result to operative or other efforts, to cure the deformity, and that I record this, not as offering the general condition of the parts in the same disease, but as showing what is sometimes their unpromising condition.—*Medical Times.*

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*On a case of Fistula of the Urethra.* By JOHN PATTESON, Esq., M. D.—M. I—, aged twenty-four, consulted me on Jan. 3, 1851, complaining of a muco-purulent discharge from the urethra. He had contracted gonorrhœa nine months previously, and the discharge since then has been constant. On examining the urethra with a bougie, I found a stricture in the membranous portion, and a sac or tumor in the portion about an inch below the corona glandis. This sac or tumor, when he made water, became always more or less distended, and by pressure could be nearly emptied; a sanious muco-purulent discharge appearing at the urethral orifice.

I punctured the cyst, and threw an injection of tincture of iodine diluted with water into it daily, at the same time treating the stricture in the usual manner. To the patient, who was of the scrofulous diathesis, I gave full doses of the iodide of potassium, and the fluid extract of sarsaparilla. This treatment along with bandaging, was persevered in for some time, without any benefit to the urethral fistula. On Feb. 22, I operated for the cure of his fistulous opening in the following manner, being assisted by my pupil, Mr. Constantine M'Guire :

Having first introduced a full-sized silver sound into the urethra, I then, with a narrow sharp-pointed knife, laid open the sac, and then found three fistulous canals proceeding from the cyst, in a direction downwards towards the perinæum, to the extent of three-quarters of an inch, when all three united, becoming one canal, which took a direction immediately backwards, and opened into the urethra, by a single opening rather more than one line in diameter. The next step was carefully to excise my puncture of the sac, and the callous sides of the fistulous canals; I then, with a small cautery-iron, touched the opening in the urethra. For the first few days the cold-water dressing was used, and the bladder regularly emptied with the catheter. The after-dressing was the basili-con ointment, and now and then with a solution of nitrate of silver.

In the course of ten days all discharge from the urethra had ceased; the patient progressed favorably, and on March 16th he was discharged cured.—*London Lancet*.

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*On the use of the Blind Gut of Fowls as a plug in Epistaxis.*—Dr. R. Hamilton, of Morristown, Belmont Co., Ohio, recommends this plug as peculiarly adapted to the treatment of Epistaxis. The following is the mode of application:

“Having freed the gut of all offensive matter, slip the cut end of it over a small quill, secure the attachment of the quill and gut by a few turns of pack-thread round the gut where it embraces the quill: pass a probe or knitting-needle through the barrel of the quill to the shut end of the gut; clear the nostril and throat of all clots, pass the gut on the probe along the floor of the nostril until it passes a little into the pharynx, taking especial care to have the concave side of the gut upward; withdraw the probe leaving the gut in the nostril. With the mouth applied to the quill blow forcibly into the gut, distending it as much as possible; tie the loose end of the gut securely between the quill and the nose, cut off the end of the gut containing the quill; and the operation is done. If medicated fluids or ice water are preferred, charge a syringe with them, introduce the point of the syringe into the quill, force its contents into the gut, and tie as above.

Another advantage the gut enjoys above every other plug is, that as soon as the coagulum has hardened so as to secure the safety of the patient, it may be punctured, and its contents allowed to escape, relieving the nostril of an annoying sense of fulness occasioned by necessary stretching of the parts. This may be done, long before the secretion of mucus from the Schneiderian membrane will have so loosened the clotted blood around the plug that it may be removed with safety; from three to four days being required to complete that process.”—*Trans. of Belmont Medical Society, for 1847*.

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*Dislocation of the Humerus on the Dorsum of the Scapula; Reduction.* (Under the care of Mr. Stanley.)—The nomenclature of the various dislocations of the shoulder has given rise (at least among surgeons) to frequent discussions, which, as is too often the case, have not ended

in a perfect understanding upon the subject; and the English reader, after taking cognizance of the divisions partially adopted in France and Germany, gladly returns to the denominations, *downwards*, *forwards*, and *backwards*, taught in our schools. The luxation which we have now to consider, and which happened in a patient of Mr. Stanley's, is called by some French surgeons the sub-variety of the sub-acromial, and by others, sub-spinal; the Germans, as stated by Mr. Smith in "Chelius' Surgery," call it outwards; but most surgeons will agree with us, that backwards, or on the *dorsum scapulæ*, is as correct a name as can be desired. That this displacement occurs but very seldom is a well known fact; it had not been seen for a long period at St. Bartholomew's Hospital; and Sir Astley Cooper says, in his work on Dislocations and Fractures: "Two cases only of this accident occurred in Guy's Hospital in thirty-eight years, the first during my apprenticeship. The nature of the accident was at once obvious from the projection of the head of the bone on the *dorsum scapulae*. The bandages were applied in the same manner as if the head of the humerus had been in the axilla, and the extension was made in the same direction as in that accident." The reduction was easily effected; the second case presented itself several years afterwards, and was reduced by the dressers. Sir A. Cooper mentions seven more cases, which mostly occurred in private practice.

That the reduction took place so readily, by using the same means as for dislocation into the axilla, might create surprise, for it seems at first sight natural that extension should be made a little outwards, when the head of the bone is lodged on the *dorsum* of the scapula. But the dislocations of the shoulder-joint are generally fraught with so little danger, the reduction is commonly so easily obtained by proper extension and coaptation, that it would be, perhaps, unwise to establish very nice distinctions as to the precise direction in which extension is to be made.

Mr. Stanley's patient was a farm laborer, aged sixty-two years, a strong, healthy-looking man, who was admitted into St. Bartholomew's Hospital, on the 4th of April, 1851, suffering from a dislocation of the shoulder-joint. The patient states that he was driving in a cart, in the company of a fellow-laborer when the horse fell, and both of the men were thrown or jerked out of the cart. One of them escaped unhurt, but the patient was violently thrown on his right shoulder, the whole weight of the fall being borne by that articulation. The contusion and laceration were not considerable, as he luckily fell on a plot of grass; but it would appear that the lesion was of a serious character, as some of the actions of the joint were suddenly lost.

The patient applied at once to a surgeon, who told him that the limb was dislocated, and attempted reduction, by putting his heel into the patient's axilla, whilst the latter was lying on his back. The efforts were, however, fruitless, and the man was advised to repair to this hospital. On examination, it was found that the axis of the right humerus, in its relation to the body, was very much altered. Beneath the spine of the scapula, and towards its outer side, was a firm hard swelling: this was the head of the bone, the fact being proved negatively by its absence

in the proper position, and positively by the swelling moving when the arm was being rotated. The glenoid cavity can be felt empty; there is very little motion of the arm, and the deltoid is tense. On rotating the arm, a kind of crepitus is distinguished, which does not feel like the ordinary crepitus of fracture, but is probably occasioned by the rubbing of the head of the bone against the axillary border of the scapula.

Mr. Stanley having determined to proceed at once to the reduction of the limb, the man was placed in a chair, and his body fixed; extension was first made in a direction outwards and rather downwards, the limb being grasped above the elbow. Scarcely had the extension begun to be used, before the bone was felt to slip from the scapula into the axilla. Further extension was made for about ten minutes, with no further effect. A jack-towel was now placed around the upper part of the humerus, and the head drawn upwards; extension was then suddenly remitted, and the bone slipped into its socket. After a short stay in the hospital, and proper confinement of the shoulder, the patient was discharged with full use of his arm.—*Lancet*, 12th July 1851.

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*Extraction of Foreign Bodies from the Bladder.*—The great difficulty of extracting foreign bodies (not calculi) from the bladder, has led our principal authorities to lay it down as a maxim, "that it is better in all cases to cut into the bladder than to attempt extracting the foreign body by the natural passages." M. Leroy-d'Etiolles, on the other hand, has clearly established that the difficulty depends on the imperfection of the instruments hitherto used for the extraction of such bodies. With proper instruments, such as those employed by M. Leroy-d'Etiolles, a great variety of foreign bodies may be extracted from the bladder through the urethra, and the danger of lithotomy avoided. Since 1841, M. Leroy has performed fourteen operations of this kind, and extracted from different individuals, "the handle of a mustard-spoon, two hair-pins, seven bougies or catheters, two branches of a *brisé-pierre*, and several splinters of bone, which had become nuclei of stones, from men wounded during the revolutions of February and June."

It were impossible to describe the great number of instruments invented by M. Leroy for the above purpose, because they vary with almost every case, according to the nature, size, and form of the obstacle to be removed. It may, however, be mentioned, that M. Leroy, with great liberality, offers to lend them to any surgeon who may have occasion to use them. They will be furnished by M. Mathieu, instrument maker, Rue de l'Ancienne Comedie.—*London Medical Times*, from *Bul. de l'Acad.*

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*Fracture of the Neck of the Humerus.*—M. Lenoir presented to the Surgical Society of Paris a pathological specimen taken from the body of a woman aged 83, the patient having died three months after the accident. The nature or extent of the injury had remained doubtful. On examination of the body, a fracture of the anatomical neck of the humerus was found. The head of the bone had torn through the capsule,

and was lodged in the subscapular fossa. A fracture of the surgical neck was nearly consolidated. The upper fragment was attached to the edge of the glenoid cavity by a portion of ligament. This cavity was nearly filled up by fibrous tissue.

MM. Maisonneuve and Larrey remarked upon the rarity of this kind of accident, and observed that its diagnosis is difficult.—*Dub. Med. Press.*

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*Case of Epilepsy Treated by Tracheotomy.* BY W. CANE, Esq.—Dr. Marshall Hall had suggested on several occasions, and especially in conversation with Mr. Cane, that as the attack of epileptic or other convulsion implied closure of the larynx, with expiratory efforts, the attack of convulsive epilepsy would be prevented by tracheotomy. Mr. Cane was summoned, on Feb. 1, 1851, to a boatman, aged 24, who had become subject to violent fits of epilepsy, one of which had just occurred in so extreme a form as to leave him in a state of deep apoplectic coma and asphyxia, inspiration being performed only “by seldom and short catches, whilst the veins of the head and neck were everywhere visible and greatly distended.” This state had continued nineteen hours. “Feeling convinced,” Mr. Cane observes, “that the patient must shortly expire, and that the root of the evil was in the closure of the larynx, I at once proceeded to open the trachea, a matter of no small difficulty, on account of the twisted state of the neck, the engorged state of the vessels, and the constant action of the muscles. The operation of tracheotomy was performed, and the tracheal tube is kept in the trachea to the present time. The relief to the patient was immediate; the air passed into the lungs, the state of spasm subsided, with the turgid condition of the head and neck, and the patient soon recovered his sensibility. This was not the only gratifying result: although the poor man had experienced his epileptic seizures in increasing violence during seven or eight years, and recently thrice a week, he had not had, up to April 1,—a period of two months,—any return of them. More recent accounts of the patient, who is now in Staffordshire, confirm the former report; the tube is still kept in the trachea and the epileptic seizures have not returned.”—*Medical Times.*

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#### MATERIA MEDICA AND THERAPEUTICS.

*Case of Poisoning with Sulphate of Iron.*—A case of suspected poisoning is reported in the *Annales d' Hygiene*, for January, 1851, in which sulphate of iron was detected in sufficient quantity in the stomach and intestines, to warrant a verdict of guilty in the case.

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*Cases of Poisoning by Cyanide of Potassium and Cyanide of Silver.*—It appears that, within a few years past, a liquid of a very poisonous nature, composed of cyanide of potassium and cyanide of silver, dissolved in distilled water, is sold in London, chiefly for the use of utterers of base coin. Cases of fatal poisoning from this article have been from time to time reported, and Mr. LETHERBY, in the *London Medical Times*,

12th July, 1851, gives the details of two additional cases. He states that "most of the cases of poisoning by this liquid have occurred among those who are engaged in the manufacture of base coin, and it is much to be regretted that a poison of so deadly a character should be accessible to a class of persons who are not over scrupulous in their dealings, or even cautious in their habits. It is sold to these persons at the charge of fourpence an ounce; this quantity is sufficient to kill four individuals, and consequently, if murder were contemplated, it might be done at the rate of one penny per head.

The symptoms produced by the liquid are a little different from those which arise from the action of hydrocyanic acid, from pure cyanide of potassium, or even from cyanide of silver; for, in the first place, it does not commonly produce vomiting, and, in the second place, it does not generally cause convulsions, but, on the contrary, it occasions paralysis, with a perfect prostration of all the vital powers, and finally, death by coma. On making a post-mortem examination of the body, we find that the lungs are highly congested, that the bronchial tubes and pulmonic cells are filled with a frothy mucus, and that while the right side of the heart is gorged with black fluid blood, the left is empty, showing that the arrest of the circulation took place at the lungs.

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*On a Substitute for McMunn's Elixir of Opium.* By EUGENE DUPUY, Pharmaceutist, New York.—Within a few years the use of this preparation of opium has been much extended in the United States, through the medium of the press, as well as from the commendation of a numerous class of our practitioners, who found it to possess a sedative property which the ordinary Tincture of Opium does not possess in a similar way. Yet many amongst them reluctantly made use of it, from the fact that its mode of preparation was kept from the public, and that the usual abuse of such preparation, fostered by *directions for use without the need of medical aid*, by mothers, nurses, etc., was a great objection to its employment by that class of practitioners who want to *know, not only* what is the effect of the medicines they administer, but also, what are their component parts, and how they are prepared. Having such men among the physicians honoring my establishment with their custom, I have endeavored to prepare for their use, substitutes for some of the nostrums possessed of some efficacy. As a result of my endeavors, I will state that my substitute for McMunn's Elixir has been tested for about six years, and has been found to possess the sedative property peculiar to it, without any of the unpleasant effects attributed to Laudanum.

The late Dr. Smyth Rodgers, formerly Professor in the New York College of Pharmacy, during his painful illness, had frequent recourse to it, and even preferred it to McMunn's preparation, according to his attending physician's statements, although he had, at first, great reluctance to try anything else. An advantage in my substitute is, that its manipulation is exceedingly simple, and that a country physician having at hand the necessary ingredients, can prepare it as well as the most expert pharmaceutist. I prepare it as follows:

Opium - - - - 3x.  
Water, - - - - q. s.  
Alcohol, 95 per ct. ʒiv.

The opium is to be made into a thin pulp with water; the mixture allowed to stand in a cool place 48 hours, then transferred into an elongated glass funnel containing filtering paper; a superstratum of water equivalent to the bulk of the whole mass is added. When 12 ounces of liquid have been filtered, the alcohol is added to the filtered solution.\*

About two-thirds of the substance of the opium is contained in the solution; the residue consisting chiefly in resin, caoutchouc and narcotina, together with the ligneous matter. Consequently, my substitute is nothing more or less than an aqueous solution of opium, nearly free from narcotina, preserved by alcohol.

Various names could be devised for it, but as it is intended to represent an article already used under a popular name, perhaps the appellation of "Elixir of Opium" might be retained for it, if no other be suggested better adapted.—*American Journ. Pharm.*

[The unpleasant effects of ordinary tincture of opium when administered to certain patients have long since originated attempts to modify that preparation; witness the *denarcotized* laudanum, Battley's sedative solution, and the preparation suggested by the late Mr. Duhamel, (*Amer. Journ. Pharm.* vol. xviii. p. 16,) which last is almost identical with the "Elixir" of Mr. Dupuy. The latter, however, has the advantage in more completely exhausting the opium and in being less alcoholic when finished. In common with many others, we have given an occasional thought to the probable mode of preparing the so called "McMunn's Elixir of Opium." It contains meconate of morphia, and hence is prepared with *neutral* solvents, so as not to disturb the natural state of combination in which the morphia exists. In glancing over the long list of the constituents of opium with the view of singling out those to which the unpleasant effects of laudanum may be attributed, perhaps none are more obnoxious to suspicion than the odorous principle, resin, acid extractive, thebaina, and perhaps codeia, and narcotina to some extent, although O'Shaughnessy and others have shown that it is extremely doubtful whether the latter really possesses any disturbing quality of the kind. By the following process, a solution of opium can be made, deprived almost wholly of the principles it is desirable to avoid, and presenting the morphia in the form of its natural salt :

Take of Opium in powder, ten drachms (troy),  
" Ether,  
" Alcohol, each; four fluid ounces,  
" Water, a sufficient quantity.

Macerate the opium in half a pint of water for two days and ex-

\* The proportion of opium is the same as that in Tinct. Opii of the U. S. P.

press; subject the dregs to two successive macerations, using six fluid ounces of water each time, with expression, mix and strain the liquors, evaporate to two fluid ounces, and agitate the liquid with the ether several times during half an hour. Then separate the ether by means of a funnel, evaporate the solution of opium to dryness, dissolve the extract in half a pint of cold water, pour the solution on a filter, and after it has passed wash the filter with sufficient water to make the filtrate measure 12 fluid ounces, to which add the alcohol and mix.

The same result was arrived at by first digesting the powdered opium in ether at several macerations, until it was exhausted, then drying and exhausting it with water. The aqueous solution was evaporated to dryness and then re-dissolved, filtered, etc., as in the above.

The ethereal liquid was evaporated at each instance :—that obtained directly from the opium yielded a brown crystalline extract, weighing 22 grains; whilst that resulting from washing the solution of opium, afforded acicular crystals and groups of larger crystals in stellated form, with a little brown extract-like matter around the edges, amounting to two grains, and having but little odor, and which exists in the elixir of Mr. Dupuy. These crystals are not reddened in the slightest degree by nitric acid, which dissolves them with a yellow color. In this treatment, the ether removes all that the water has dissolved of the thebaine, the meconin, a part at least of the codeia, the odorous principle, meconate of narcotine, and fatty matter. The ethereal extract obtained directly from the opium, contains nearly the whole of the odorous matter and fatty matter, besides the narcotine, free and combined. The evaporation to dryness, and re-solution in water, removes the ethereal odor, and separates a portion of acid resin and extractive. Landerer, in another part of this number, speaks of the nauseating and other unpleasant effects of the exhalations from poppy plantations during the collection of the opium. May not the odorous principle of opium have something to do with this effect, and may not the removal or loss of this in the so-called *denarcotized laudanum*, and in *old opium pills*, be at least partially the reason of their diminished tendency to produce nausea and headache? Mr. Redwood considers the “sedative liquor of Battley,” to be an aqueous solution of opium evaporated to dryness to get rid of the acid resin, re-dissolved in water, and a small portion of spirit added to give it permanence.]—*Ed. Journ. Pharm.*

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*Aloine, the Cathartic principle of Aloes.*—Messrs. T. & H. Smith, report in the Monthly Journal of Medical Science, Feb. 1851, the discovery of a new principle in Aloes, on which the cathartic properties of the drug appear to depend. *Aloine* is a neutral crystalline substance, of a deep yellow color, soluble in very small quantity in cold water, readily soluble in hot water, alcohol, alkaline liquids, acetic ether, and acetic acid. It produces the cathartic action of aloes in doses of from one to two grains, and there can be little doubt of its being the active principle.